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AN EVALUATION OF THE HEALTH AND SAFETY EDUCATION
OF MONTAGUE COUNTY, TEXAS, SCHOOLS

THESIS

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CHAPTER I

INTRODUCTION

Health is a primary objective of modern education. It was named as the first of the seven cardinal principles of education. Over a period of years the health and safety of the school children have gradually become more firmly fixed as a part of the school program. Modern schools, when adequately staffed and administered, provide experiences in healthful daily living, an opportunity to become acquainted with good health services, a chance to learn something about the care of one's own body, the maintenance of health, and the prevention of disease. Thus the schools have come to contribute to community health through their planned programs of health service and through cooperation with other health and safety agencies.

Purpose of the Study

The purpose of this study is to make an investigation of the adequacy of the program of health and safety education of the public schools in Montague County, Texas. The aim is to evaluate the health services and safety precautions afforded by these schools for the purpose of protecting and improving the health and safety of the pupils and teaching personnel. Attention is given to the background

and development of the program of health and safety education. Criteria are established for evaluating the existing program of health and safety education. Finally, the programs of the several schools are evaluated in the light of the criteria that have been set up.

Limitations of the Study

This study is limited to the following ways:

1. Only those public schools located within the geographical areas of Montague County, Texas, will be included in this study.
2. The evaluation is based on data secured by questionnaires sent to the principals of the several schools of Montague County, Texas, May, 1950.
3. The study assumes that the school grounds and school buildings have been chosen and erected according to standards set up in the Public School Laws of the State of Texas.
4. The phases of health and safety education to be considered in this study are health instruction, health service, physical education, health of personnel, school feeding, and first-aid safety.
5. This study is limited to those phases of health service and safety precautions which are normally outside formal classroom instruction. Classroom instruction is considered when it has direct relationship or effect upon health services.

Sources of Data

The sources of data for this study of health and safety education are: (1) reports made by the White House Conference on Child Health Protection, American Child Health Association, Joint Committee on Health Problems in Education of the National Education Association and American Medical Association with cooperation of the Advisory Committee, and National Safety Council; (2) National Committee on School Health policies; (3) bulletins published by the Texas State Department of Education, Texas State Department of Health, and United States Government Printing Office; (4) works of some authorities on the subject of health and safety education; and (5) information secured from school officials serving several public schools of Montague County, Texas. The principal of each of the several schools of Montague County completed the evaluation form giving the health and safety practices of his school. These questionnaires furnish the data of the existing program, and they form the basis of the evaluation for this study.

Definitions

The terminology used in this study is similar to that used in many related studies. The following definitions are used in this study:

1. Health in the human organism "is that condition that permits optimal functioning of the individual

enabling him to live most and to serve best in personal and social relationships."¹

2. Health education "is that sum of all experiences which favorably influence habits, attitudes, and knowledge relating to individual, community, and racial health."²
3. Health instruction is "that organization of learning experiences directed toward the development of favorable health knowledges, attitudes, and practices."³
4. Health service "comprises all those procedures designed to determine the health status of the child, to enlist his cooperation in health protection and maintenance, to inform parents of the defects that may be present, to prevent disease, and to correct remediable defects."⁴
5. Health examination is "that phase of health service which seeks through examination by a physician, dentist, or other qualified specialists to determine the physical, mental, and emotional health of an individual."⁵

¹Jesse Feiring Williams, Chairman, "Definitions of Terms in Health Education," Journal of Health and Physical Education, V (December, 1934), 17.

²T.D. Wood and C.L. Brownell, Source Book in Health and Physical Education, p. 57.

³Williams, op. cit., p. 17. ⁴Ibid.

⁵Wood and Brownell, op. cit., p. 57.

6. Physical education "is that phase of the school program which is concerned largely with the development of physical fitness through the medium of big-muscle activities requiring strength, speed, agility, and endurance; with the acquisition of motor skills of interest to growing youth and of value in later life recreation activities; and with the development of socially desirable habits, knowledge, and attitudes which contribute to the aims of education."⁶
7. Sanitation and hygiene have reference to the daily health habits practiced by the pupils.
8. School feeding is concerned with school lunches and cafeterias in the interest of hygiene, economy, and health education.
9. Safety education is defined as "that area of experiences through which boys and girls learn to make wise choices when the possibility of injury to self and others is one of the factors involved."⁷

These definitions recognize that health and safety education is a continuous process, as it is true of all aspects of education. Furthermore, there seems to be a linking thread through all of these definitions stressing the development

⁶David K. Brace, Health and Physical Education for Junior and Senior High Schools, 1948, p. 4.

⁷Herman H. Horne, "A Philosophy of Safety and Safety Education," Safety Education Digest, June, 1940, p. 3.

of a sound philosophy of life based upon the proper recognition of each person's relationship to his fellow man.

Method of Procedure

With the idea of evaluating the program of health and safety education of the schools of Montague County, Texas, as an objective for this study, the following activities were initiated: (1) survey of literature on the subject to discover what has been accomplished by way of research in this particular field; (2) examination of the historical background and development of school health and safety; (3) formulation of criteria for evaluating the existing program; (4) preparation of questionnaire covering the points of the program to be evaluated and securing the needed information; (5) evaluation of existing program; and (6) presentation of such conclusions and recommendations as the study indicates.

Related Studies

Several related studies have been made in the field of health and safety education that are related to this present study.

A study was made by the White House Conference on Child Health and Protection that deals with all phases of the obligation of the school to help safeguard the health of the child.⁸ Some fifteen hundred persons actively engaged in

⁸White House Conference on Child Health and Protection, School Health Program, 1933.

health work contributed to this work. The report is similar to the present study in that both deal with standards of evaluation and recommendations with reference to health service, health instruction, and health supervision.

Another study in the field of health was sponsored by the Department of Health and the Board of Education of New York City.⁹ Throughout the period of study and experimentation, a single objective was kept in mind--the effective utilization of organized effort for better health of school children. The Astoria study and this present investigation are similar in that the objectives are the same.

The American Child Health Association prepared a report involving the evaluation of the health programs of fifty-three secondary schools in the United States.¹⁰ The report deals with all the phases of health and safety education that are discussed in this study. This report and the present study are similar in that both were made with the objective of improving the school health of boys and girls.

Another study that is related to this investigation was made under the direction of Wood.¹¹ His study includes

⁹Dorothy B. Nyswander, Solving School Health Problems, 1912.

¹⁰American Child Health Association, Health Trends in Secondary Education, 1927.

¹¹Health Education, A Report of the Joint Committee on Health Problems in Education of the N.E.A. and A.M.A. with Cooperation of the Advisory Committee, National Educational Association, 1941.

discussions of the aims of education, essential subject matter for teachers, educational problems and principles, and suggestions for courses of study.

Another related study was made by the committee on School Health Policies.¹² This document is really "a charter for school health." It implies that the adoption of this charter by any school system will improve the health status of the pupils in that school and of the community in which it is located.

A very pertinent study in the field of school health was made by Turner.¹³ His study seeks to present the educational aspects of the school health program and the personal relationships involved. Several of the best educators and health specialists of this country contributed to this study. Some of the subjects discussed are similar to this study.

Another related study was made by Laporte, Hunt, and Eastwood.¹⁴ These writers affirm that the public is demanding that schools give greater attention to safety education, and they agree that the school will be confronted immediately with a number of problems. They also agree that experience will bring new insights and point the way to new approaches in safety education.

¹²National Conference for Cooperation in Health Education Committee on School Health Policies, School Health Policies, Second Edition, 1946.

¹³C.E. Turner, School Health and Health Education, 1947.

¹⁴W.R. Laporte, C.H. Hunt, and F.R. Eastwood, Teaching Safety Education in Secondary Schools.

A number of these that are related to this investigation have been written on the different phases of health and safety education. One of these was written by Heizer.¹⁵ The purpose of his study was to determine the adequacy of the program of health in Texas high schools of one to five hundred scholastics. Among other things, this study was an attempt to discover the adequacy of the periodic physical examinations. His study is similar to this investigation in this respect.

Another related study is the one made by Long.¹⁶ The emphasis of his study was placed on improving the program of health, physical education, and intramurals. His study and this present investigation are related since each of these topics is discussed in this inquiry.

A study in the field of health was made by Silk.¹⁷ His study involved an evaluation of all phases of the school health program of the schools in Denton, County, Texas. The evaluation of his study was made by the expressed statements

¹⁵Richmond P. Heizer, "An Evaluation of the Adequacy of the Health Program in Certain Texas High Schools" (Unpublished Master's thesis, Department of Education, North Texas State College, 1941).

¹⁶Lewis B. Long, "A Plan for Improving the Health, Physical Education, and Intramural Program for Boys in West Columbia High School" (Unpublished Master's thesis, North Texas State College, 1947).

¹⁷Charles E. Silk, "An Evaluation of the Health Program of Denton County, Texas" (Unpublished Master's thesis, North Texas State College, 1948).

and opinions of teachers, parents, physicians, dentists, sponsors, and the reactions of students within the area covered by the study. The main difference between his study and this investigation is the method of evaluation. The studies are related in reference to the phases of health education covered in the inquiries.

Lockhart made a study that is related to this present investigation.¹⁸ Her study was an attempt to analyze the values and results of one year's participation by the Sanger, Texas, School in a three-year Texas Health Education Program in order to determine an adequate basis for making recommendations for further development of the program. The study attempts to formulate suggested recommendations that will promote a continuing and well-balanced program to improve human living by guiding living situations rather than instructing about health. The study is related to this present investigation in that emphasis is placed on health service as a means of teaching health rather than by formal class instruction.

¹⁸Cleo N. Lockhart, "An Analysis of a First Year of Participation in the Texas Health Education Program by the Sanger School" (Unpublished Master's thesis, Education Department, North Texas State College, 1949).

CHAPTER II

HISTORICAL BACKGROUND AND DEVELOPMENT OF HEALTH AND SAFETY EDUCATION

The place of the modern health and safety education program among school activities may be understood better if consideration is given to the development of the school health and safety program of this country.

The modern school health and safety program recognizes significant contributions to health and safety from many sources, including the medical, nursing, and dental services, physical education, health instruction, specialized training in the field of nutrition, and the public control of school sanitation and communicable diseases. Each of these services in the public schools has a history of its own that is worthy of separate treatise. In the approach to a more detailed consideration of health and safety education, a few dates may serve to mark the beginnings of progress in the various fields with brief comments concerning the various phases of health and safety.

Early Beginnings in Health

Our first public schools were without a health program. Public education in the eighteenth century was restricted to the "three R's;" however, a noticeable change took place

during the first half of the nineteenth century when health was considered as an individual and family responsibility. Health activities gradually came into the ever-broadening program.

Many school health activities originated in Europe.

Gulick and Ayres said that:

The earliest work in the field of medical inspection seems to have been done in France, where the law of 1833 and the royal ordinance of 1837 charged the school authorities with the duty of providing for the sanitary conditions of the school premises and supervising the health of the school children. A few years later, in 1842 and 1843, governmental decrees were promulgated in Paris, directing that all public schools should be regularly inspected by physicians. In spite of these early beginnings, however, it was in 1879 that genuine medical inspection in the modern sense of the term was begun in France. In that year the general council of the Department of Seine reorganized the medical service in the school of Paris and passed an appropriation for the payment of the salaries of physicians. Eight years later medical and sanitary inspection were made obligatory in all French schools, public and private.¹

The school health program that started in France spread to other countries. In this respect Turner said:

Between 1868 and 1873 physicians were placed on the staff of public schools in Sweden (1868), Germany (1869), Russia (1871), and Austria (1873). In 1874 Brussels, Belgium, developed the first medical inspection system, which consisted of regular tri-monthly inspections of all schools by a physician. School oculists and dentists also began their work here.²

¹Luther Halsey Gulick, and Leonard P. Ayres, Medical Inspection of Schools, p. 7.

²C.E. Turner, Principles of Health Education, pp. 8-9.

A lengthy discussion of the European development of school health does not seem necessary, but it should be realized that many of the school health services originated abroad and then spread to the United States.

The school health movement in the United States is, in general, the product of the last fifty years. The following dates will indicate this fact while attention is being directed to the beginnings of some of the phases of health education.

Health instruction.--It was during the decade of 1880 to 1890 that the first laws were passed requiring health instruction in the public schools. Rogers states:

During this period every state in the United States passed a law requiring instruction concerning the effect of alcohol and narcotics. In forty states these laws specified that instruction should be a part of a broader program of instruction in physiology and hygiene.³

This was the beginning of instruction in hygiene on a broad scale even though a few courses may have been introduced earlier in some parts of the country.

Health service.--Health service was instituted in an effort to prevent epidemics among school children. In this respect, Turner says:

In 1884, following a series of epidemics among school children, Dr. Samuel Durgin, Health Commissioner

³J.F. Rogers, State-Wide Trends in School Hygiene and Physical Education, United States Office of Education, Pamphlet No. 5, May, 1930, p. 40.

of Boston, established the first regular system of medical inspection in the schools of the United States. Other cities (Chicago, 1895; New York, 1897; Philadelphia, 1898) soon undertook this work.⁴

At the turn of the century a number of state legislatures passed laws establishing different phases of school health services. Turner records the origin of the following health services:

In 1899 the first law requiring that teachers in public schools test the eyesight of children was passed by the State of Connecticut.

In 1902 Miss Lillian Wald, known for her visiting nursing work on the East Side, presented to the Health Commissioner of New York City data which she had collected concerning children who, although excluded from school because of some physical defect or contagious condition, were not receiving supervision. On the basis of these data the Visiting Nursing Association was permitted to place a nurse in the public schools for a period of one month. Later in the same year, as a result of this experiment, twenty-five school nurses were appointed in New York City.

In 1903 the first school dentist was appointed in Reading, Pennsylvania.

In 1904 the State of Vermont began a system of compulsory ear, eye, and throat examinations.

In 1905 New York City schools began examining each child for physical defects.

In 1906 Massachusetts passed a law requiring medical inspection in the public schools. By 1910 medical inspection was required in 337 cities in the United States, and 1,194 doctors, 371 nurses, and 48 dentists were employed by school systems.

In 1914 ten dental hygienists were introduced into the schools of Bridgeport, Connecticut, by Dr. Alfred Fones, who is considered the father of the movement.⁵

⁴Turner, op. cit., p. 40.

⁵Ibid., pp. 40-42.

These origins seem important, for they mark the beginnings of the modern school health service program. It has become increasingly apparent that fact alone will not produce hygienic living, and that health education involves real training and problem solving--not mere instruction.

Physical education.--This phase of the school health program is concerned largely with the development of the body through training in big-muscle activities. It seems that early beginnings of physical education were really only attempts to transplant to this country the nationalistic systems of various European countries. These early systems took the form principally of military discipline or systems of artificial movements. However, the growth of physical education in this country seems to have really started in 1885 in Kansas City, Missouri, when the first director of physical education was appointed.⁶ Following this appointment the growth of physical education as a phase of the health program grew rapidly. As evidence of this, Turner says: ". . . Between 1886 and 1896 there was a rapid adoption of physical education as a subject of instruction in the public schools of cities, especially in the Middle West."⁷

A little later, legal steps were taken that began to fix physical education as a part of the curriculum. Concerning this Turner says: "In 1892 Ohio passed the first state law

⁶Ibid., pp. 39-40.

⁷Ibid.

requiring physical education in public schools of cities of the first and second class. In 1899 North Dakota was the first state to pass a law making physical education a required subject in all common schools.⁸

These early beginnings established physical education as a necessary part of the school curriculum. Through this type of training, pupils have been given opportunity to attain their fullest development mentally, socially, and emotionally as well as physically.

School feeding.--School feeding did not become a part of the school program as readily as some other phases of health. Ayres, Williams, and Wood give some of the early attempts in school feeding. They record this experiment:

In 1894 the Star Center Association of Philadelphia started a penny-lunch service at the James Forten School, Sixth and Lombard Street. The School Lunch Committee of the School and Home League was an outgrowth of the original School Lunch Committee of the Star Center, and the first of its kind in the United States. In October, 1907, the service of the Forten School was reorganized and service in two additional schools was begun. In May, 1910, in order to have an organization elastic enough to meet the growing demands for school lunches, and which could readily be extended to all public schools, the School Lunch Committee was organized as a standing committee of the Home and School League of Philadelphia.

In September, 1911, this school lunch undertook a definite experiment in order to find out: first, whether or not children will buy wholesome food at the school if given the opportunity, and what price they can pay for it; second, to demonstrate a method of serving school lunches which would (a) maintain a definite standard of food and service at the lowest possible cost, and (b) become supporting to the extent of food costs, preparation,

⁸Ibid.

and service. The experiment was carried on for five years under the immediate direction of Dr. Alice C. Boughton, secretary of the committee. At the end of the five-year period a report was published by the School Lunch Committee, giving its findings and recommendations that the Committee be discontinued as a private organization, and that the work be taken over and administered as a part of the regular school system. This is the most important experiment in school feeding of which we have as yet any record; and much of the material which is presented in this chapter is taken from or suggested by the Reports rendered by the Philadelphia School Lunch Committee.⁹

This report of the Philadelphia School Lunch Committee has been quoted at some length because it gives the result of a scientific experiment in education. From these early beginnings, the school lunch has grown until it appears to be universally accepted throughout the country.

Since nutrition is a major factor in promoting health, the school lunch has a very important place in the program of health education. This responsibility rests largely with the administration. Federal aid, through the National Lunch Act of 1946, has been of great assistance to small schools in promoting an adequate school feeding program, and organizations have realized the importance of a well-prepared and nutritious school lunch.

Health of personnel.--This is apparently one important phase of the health education movement that has been given minor attention in most sections of the country. As early

⁹ May Ayres, Jesse Feiring Williams, and Thomas D. Wood, Healthful Schools: How to Build, Equip, and Maintain Them, pp. 269-270.

as 1895 the City of Leipzig, Germany, required a physical examination for its teachers, and in 1910 the United States Office of Education recommended that teachers in this country should be required to have a physical examination. The movement met with much protest because of the fact that it recommended that the school should assume the responsibility of the examination; however, a general sentiment in favor of the practice was indicated. According to Phelan's report in A Study of School Health Standards the practice is growing.

The extent to which the standard has found its way into practice in this country is indicated in a recent report from the Office of Education. Replies to a questionnaire distributed by that office early in 1930 to all superintendents in the country, yielded data which may be summarized as follows: in the cities reporting from the population group of 100,000 or over, one half of the school systems provided health examination for the teachers at the time they entered the system; two out of every twenty-five gave the teachers an annual examination; one in five examined the teacher on request; and one in ten at other times. Replies from cities between 30,000 and 100,000 indicate that in these cities, one out of every four school systems examined the teacher at the time she was hired; three out of every 100 provided an annual examination and one out of five gave examination at other times. In the cities between 10,000 and 30,000, teachers were examined at the time of employment in one out of four school systems; they had an annual examination in six out of 100, and on request in one out of twenty-five. In the two larger groups of cities, the practice of requiring health certificates from new teachers was followed in only five out of twenty-five cities; while in the smaller groups, certificates were required in only two out of every fifty cities. Less than one third of the cities reporting for the groups which include cities of 10,000 or more, either provided health examination for new teachers or required a health certificate.

From these data, there would appear to be a definite lack of evidence to show that school administrators consider health of major importance among the qualifications

of candidates for teaching positions. From the data also, it would appear that schools providing health examinations for children do not as a rule extend the same service to the teachers of the children.¹⁰

First-aid and safety.--"Instruction in health and safety is a salient feature of the school health program,"¹¹ Every school system should have some form of first-aid available and a course of instruction in safety measures should be given at the beginning of each school year.

Phelan's early historical background of a school health program gives the following history of early safety:

In its modest beginning in this country the school health program had as its chief objective the protection of school children from two recognized dangers--fire hazards and the poisonous effects of a concentration of carbon dioxide in the air of the classroom. The progress from that narrow, utilitarian purpose to the present-day understanding of what is involved in a program of healthful living for school children has led into many byways, and the program itself has been subjected to a variety of influences.¹²

As late as 1894, several states had meager requirements for fire protection of buildings, but no mention was made of first-aid requirements. The majority of schools today are equipped with first-aid kits and give some manner of safety instruction as a protection against accidents at school and at home.

¹⁰Annette M. Phelan, A Study of School Health Standards, pp. 181-182.

¹¹Charles C. Wilson, Health Education, National Education Association of the United States, 1948, p. 85.

¹²Ibid., p. 14.

From the period beginning in 1880 down to the present date, widespread development has been recorded in the field of health education and safety, but many improvements and advancements must be made in order to make the State of Texas totally health-conscious. According to surveys and reports in this field, more has been accomplished in the last ten years than in all the preceding years combined; however, the pioneers in this work did much to promote and inspire later progress. At the present time many teacher-training institutions continue to graduate students with no preparation or study in the field of health and safety education.

Brownell mentions the two World Wars as a retarding influence:

During the prosperous decade of the present century health education flourished in terms of both changed educational theory and adaption of theory into actual practice . . .

The depression years that followed witnessed a slackening of effort in all aspects of health education, with health instruction relegated to an inferior position in most schools if not totally neglected. In a few schools and colleges, however, health instruction held its own and even advanced during the depression years . . .

And then came the Second World War with evidences of physical unfitness similar to those disclosed in 1917. Public-minded citizens and general educators alike heaped condemnation on the health services and health instruction for results classified as failures! In their haste to find someone upon whom to place the blame, many persons overlooked the fact that the principal causes for military rejections pertained to defects unpreventable by either school-health services or by health instruction. A further truth deserves emphasis by the statement that neither health services nor health instruction had been given the opportunity to demonstrate the real values inherent in either program. The social

and economic lag of the country throughout the depression years was too often reflected in a soft and desultory educational system. But the carry-over emphasis of this condemnation on health and safety instruction and the health services may foretell greater achievements in future years.¹³

The development of this present modern age seems to make it imperative that more attention be given to safety.

Legal Developments in Texas

The Public School Laws of the State of Texas pertaining to health and safety education are more or less comprehensive. Each law on this subject is an advancement in the progress toward the goal of health and safety for the children in the schools of this state.

Health instruction.--The law as passed in 1943 prescribing required subjects reads as follows:

All public schools in this State shall be required to have taught in them physiology and hygiene. The effects of alcohol and narcotics shall be taught in all grades of the public schools and in all of the colleges and universities that are wholly or in part supported by State Funds.¹⁴

In compliance with this law, the State Department of Education has prepared the following Minimum Requirements for Physical and Health Education for all Public Schools:

¹³ Clifford Lee Brownell, Principles of Health Education Applied, pp. 237-238.

¹⁴ State Department of Education Bulletin, Public School Laws of the State of Texas, No. 463, 1943, p. 25.

1. Each secondary school student must receive 120 minutes per week of class instruction in physical education each year adjusted to individual needs.
2. Each elementary school student must receive 150 minutes per week of adapted class instruction in physical education each year. (Recess periods and freed play periods shall not be considered as a part of the 150 minutes).
3. At least 40 minutes of additional time per week shall be devoted to health instruction in both elementary and secondary schools (either in regular health classes or correlated with other subjects).
4. All beginning classroom teachers in elementary grades who direct or teach any part of the physical and health education program must have six semester hours college credit in physical and health education in addition to other requirements for classroom duties.
5. Part-time teachers in physical and health education must have twelve semester hours in physical and health education.
6. All full-time teachers of physical and health education must have at least twenty-four semester hours of college credit in physical and health education.
7. In high schools, boys' physical education classes should be taught by a man and girls' classes should be taught by a woman. In case of co-education activities it is desirable that both teachers be present.¹⁵

It should be remembered that these are the minimum requirements for physical and health education. Actual practices of the public schools of Texas may hold to a higher standard.

Health service.--This service "includes all those procedures designed to determine the health status of the child, to enlist his cooperation in health protection and

¹⁵Gordon Worley, Standards and Activities of the Division of Supervision and Accreditation of School Systems, Bulletin No. 507, 1948-1949, p. 78.

maintenance, and to inform parents of the defects that may be present."¹⁶

The Texas State Department of Education recommends the following items necessary for an adequate health service:

1. Arrangement whereby each student is continuously observed by teachers to detect signs that may indicate the student should be examined by a physician.
2. Periodic physical examinations.
3. An annual appraisal of physical fitness. The appraisal of physical fitness is to be made annually at the beginning of the school year and completed by a final check at the close of school in the spring.
4. Assignment to one of the four health classifications for physical education.
5. An examination by a physician of each student planning to compete in strenuous athletics.
6. A plan for securing the correction of health defects.
7. Adjustment of the school program in accordance with the results of the appraisal of health and physical fitness.
8. Immunization programs and other measures for the control of communicable diseases.
9. Employment by the school of a trained nutritionist to supervise the lunchroom and plan balanced meals.
10. Adequate and easily available first-aid equipment in each school and school bus.¹⁷

Senate Bills, Nos. 115, 116, and 117 provide for further health services as follows:

Sec. 2. Professional Positions and Services. To effectuate the Foundation School Program proposed and guaranteed herein, school districts are authorized to utilize the following professional positions and services.

¹⁶James H. Dougherty, and Henry G. Shands, Guide to Healthful Living in Elementary Schools, Bulletin State Department of Education, No. 475, 1946, p. 5.

¹⁷David K. Brace, Health and Physical Education for Junior and Senior High Schools, Bulletin State Department of Education, No. 444, 1948, pp. 2-3.

3. Special service teachers, among which shall be included school nurses, school physicians, visiting teachers, and itinerant teachers.
4. Teachers of exceptional children.

Article III Section 1. Professional Units provide (3) Special Service Teacher Units. Special service teacher professional units for each school district, separate for whites and separate for negroes, shall be determined and teachers allotted in the following manner:

- a. Such allotments shall be based upon the number of approved class-room teacher units, separate for whites and separate for negroes.
- b. Districts which have twenty or more approved classroom teacher units shall be eligible for (1) one special service teacher units.
- c. Districts not eligible for a full special service teacher unit may enter, by vote of their respective boards or trustees, into one cooperative agreement to provide special service teachers, as prescribed in paragraph (b) of this subsection, to be recommended and supervised by the County Superintendent, and employed by the County School Board. The State Commissioner of Education shall, upon certification of such agreement by the County Superintendent of Schools, allot to each district part of special service teacher unit, said fraction to be not greater than the number of approved classroom teacher units for that district divided by twenty.
- d. Provided that school districts may choose from five types of special service teacher units listed in Section 2 of Article II of this Act, Sub-section A-3 the number of each classification that is desired to the extent of total eligibility for such units and the allocation of special service teacher units shall not preclude the assignment of classroom teachers to special service duties. The State Commissioner of Education shall establish qualifications of special service teachers and subsequent to the 1949-1950 school year such qualifications shall be subject to regulations made by the State Board of Education.
 Provided further that the special service teacher unit allotments provided for herein shall be made in addition to other professional unit allotments.¹⁸

¹⁸
Senate Bills (Gilmer-Aikin Bills), Nos. 115, 116, and 117, Fifty-First Legislature, State of Texas, 1949, pp. 12-13.

The additional advantages as provided by Senate Bills 115, 116, and 117 seem to make it possible for Texas Public Schools to improve their health service program.

Physical education.--On September 1, 1930, the following State Law was passed providing for physical education in the schools:

That instruction in physical education shall be established and made part of the course of instruction and training in the public elementary and secondary schools of the State by September 1, 1939. The State Superintendent of Public Instruction shall prepare courses of instruction for the public schools of the State for the purpose of carrying out this act.¹⁹

In accordance with this law, minimum requirements for health and physical education were set forth. These requirements were discussed in the section on Health Instruction and will not be repeated at this time.

Health and personnel.--The State Department of Education interpreted the law pertaining to health of personnel as follows: "A teacher should be chosen on the basis of sound physical and mental health."²⁰

Many of the larger systems in the State require an annual physical examination of all teachers; however, in the majority of schools this phase of the health program is more or less ignored.

¹⁹Worley, op. cit.

²⁰State Department of Education Bulletin, No. 463, p. 25.

School feeding.--There is no State law for this section of the school health education; nevertheless, much has been written on the necessity and advisability for nutritious food as a major part of health. The State Health Laws provide for inspection of school cafeterias and lunch rooms and require health certificates of all employees handling food. In the State Department of Education recommendation for an adequate health service, one of the requirements is "the employment by the school of a trained nutritionist to supervise the lunchroom and plan balanced meals."²¹

Increased impetus seems to have been given to school feeding during the depression years when Works Progress Administration labor was available and when the government distributed foods through the Surplus Commodity Corporation. Even though W.P.A. has ceased to exist, schools may receive foods from the Federal Government as well as some monetary re-imbusement based on the type of lunch served.

The school lunch has been more permanently fixed in the schools by the following Act of Congress:

It is . . . declared to be the policy of Congress, as a measure of national security to safeguard the health and well-being of the Nation's children . . . by assisting the States, through grants-in-aid and other means, in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation, and expansion of nonprofit school-lunch programs . . .²²

²¹Brace, op. cit., pp. 2-3.

²²Delbert Oberteuffer, School Health Education, pp. 269-70.

Thus, the school lunch has become more firmly affixed in Texas schools.

First-aid and safety.--In a previous discussion of this topic it was found that one of the earliest provisions pertaining to health education was in regard to safety.

Provision against accidents at school and instruction in safe performance of life activities is an obligation and a justifiable goal of education. If the aim of education is to prepare children for life, to provide experiences through which children become equipped for citizenship in a democracy, or to teach children to do better those desirable life activities they will need to do, it is obvious that instruction in safe living is an essential part of education at each school level. Thus the teaching of safe living takes its place with instruction in health and physical fitness; in language, in earning a livelihood and living in a democracy as essentials of public education.

Although instruction in safe living should begin in the home and be carried on continually by parents, the elementary school has a great obligation in safety education. Children of elementary school age are experiencing new situations and encountered in the home. They are acquiring attitudes, skills, and knowledge which will influence them throughout life and will be the foundation of later learning and reaction patterns which will mold them as future citizens. "As the twig is bent so the tree will grow" is as true in relation to safety as in other phases of living.²³

Some of the Texas State laws are for the promotion of safety in the schools, and one of the most important of these is the fire-escape law, which reads as follows:

The owner of each building, which is or may be constructed in this State, three or more stories in height, or in case of a schoolhouse two or more stories in height, constructed, used, or intended to be used in whole or in part as any of the following buildings, shall provide

²³Gordon Worley, Guide to Safe Living for Elementary Schools, State Department of Education, Bulletin No. 461, pp. 12-13.

and equip such buildings with at least one adequate fire escape, as provided in the three succeeding Articles.²⁴

Further safety provision is made in the erection of school buildings, for all school buildings in the State of Texas must be constructed in accordance with Article 2920 of the School Law of the State of Texas.²⁵ The law further provides that the State Superintendent of Public Instruction shall prepare as many as three sets of plans for school buildings, and these may be had upon request by school trustees.

The safe transportation of pupils to and from school is another matter that is controlled by law. The qualifications of bus drivers, bond of drivers, condition of busses, and regulation regarding the operation of school busses, are regulated in Article 2687a of the Public School Law of the State of Texas.²⁶

In this section reference has been made to existing laws regarding health instruction, health service, physical education, health of personnel, school feeding, and first-aid and safety. In all these phases of health and safety education, growth and development have been made, especially in the last two decades.

²⁴Public School Law of the State of Texas, State Department of Education Bulletin No. 413, p. 211.

²⁵Ibid., p. 197. ²⁶Ibid., p. 41.

Summary

A brief history of the background and development of health and safety education is presented in the study. Attention is given to early beginnings in health and safety education in Europe. In the later part of the eighteenth century, schools in America gradually added the different phases of health and safety education to the school program.

Some attention is given to legal development regarding health and safety in the State of Texas. The State has passed laws regarding health and safety instruction, health service, physical education, health of personnel, and first-aid and safety. School feeding is established by an Act of Congress of the United States.

CHAPTER III

CRITERIA FOR EVALUATION

The value and importance of an adequate school health education program and an adequate safety education program cannot be over-emphasized. Health and safety are two subjects of the most vital importance in the education of the school child. The stress and emphasis placed on these two subjects have an influence and a value throughout the entire life of the child. Consequently, the health and safety education program in any school is of untold importance. In the gravity and light of its importance, this study is an endeavor to show by evaluation with certain criteria the status of the health and safety education program in the public schools of Montague County, Texas.

This evaluation of outcomes is a very difficult technical procedure for several reasons. Health is a very difficult thing to define and consequently a difficult thing to measure. That is, health is the possession of well-functioning organs, a serviceable structure, immunity to specific infections, the ability to combat infections, the ability to withstand strain, knowledge of health principles, and willingness to follow health principles. Health by definition includes not only what is static today, but it concerns potentialities for the future as well. Health is influenced by economic status, by geographical location, by climate, by the presence or absence of curative facilities to take care of ill health, as well as by other things that will occur to all.

Only a portion of the influences are controllable. Then, only a portion of the controllable influences are

subject to modifications, change or control within the school. The task, then, of evaluating the outcomes of a health program curriculum consists of precipitating out of the particular influence that is due to the school curriculum from all the other multifarious influences.¹

In the face of this difficulty, some evaluation of the school health program is possible and necessary. The difficulty of evaluating health should be a challenge, and the challenge should be met by determined efforts.

Health Instruction

At the outset of this study, health education was defined as "that organization of learning experiences directed toward the development of favorable health knowledges, attitudes and practices."² Education in the twentieth century is answering this challenge by developing programs of school health instruction. The basic purpose seems clear; to bring to bear upon the individual life the best in information and service from the scientific world, so as to preserve, protect, and develop that life. The National Committee on School Health Policies recommends the following as a desirable approach:

Schools should clearly and definitely instruct pupils concerning the functioning of the human organism,

¹American Child Health Association, Principles and Practices in Health Education, p. 340.

²Jesse Feiring Williams, "Definition of Terms in Health Education," Journal of Health and Physical Education, V (December, 1934), 17.

the maintenance and improvement of health, the causes and methods of prevention of diseases, and the organization and function of community health programs. As a result of the greatly increased complexity of modern living, it becomes necessary to include, as a part of the general program, instruction in matters pertaining to the prevention of accidents.³

Turner contends that the pupil should acquire:

Knowledge and understanding of (1) normal body functions in relation to sound health practices, (2) the major health hazards, their prevention and control, (3) the interrelation of mental and physical processes in health, and (4) community health problems, such as problems related to sanitation, industrial hygiene, and school hygiene.⁴

The National Committee on School Health Policies suggests:

A well-organized program will give proper emphasis to direct health instruction and to supplementary or incidental instruction in other subject-matter areas. Extra class activities, auditorium programs, day-by-day healthful school living, and the experiences of students with the various procedures for health protection and promotion should be used.⁵

With reference to correlation, Turner recommends the following:

Successful correlation must be pertinent. There must be a real relationship between the ideas that are being correlated. There are really three different types of correlation: 1. Health facts may be shown to apply to life situations; 2. certain subjects supply facts supporting health principles; and 3. the teaching of fundamental skills, like language, arithmetic,

³National Conference for Cooperation in Health Education, Suggested School Health Policies, p. 16.

⁴C.E. Turner, School Health and Health Education, p. 20.

⁵National Conference for Cooperation in Health Education, op. cit., p. 16.

and handwork, may often be made interesting by selecting health facts, experiences, or situations as the basis of teaching.⁶

The National Committee on School Health Policies gives the following information regarding the teaching of health in the elementary grades:

Health instruction in the elementary grades is the classroom teacher's responsibility. At the elementary school level, health teaching consists largely in helping children to develop desirable habits of and attitudes toward healthful living . . . She relates much of her instruction to such life experiences as the use of toilet and hand-washing facilities; medical and dental examinations; weighing and measuring; visits to the physician, nurse or other health specialists; playground activities; and the lunch period.

The amount of time needed for health instruction in the elementary schools cannot be determined arbitrarily since the needs and interests of pupils vary . . . Since health is considered one of the first objectives of education, the amount of time allotted to health instruction should at least equal that devoted to any other major area of the curriculum.⁷

Health instruction in the secondary school becomes complicated by many conditions peculiar to the secondary school.

The National Committee on School Health Policies states:

There is a growing tendency, however, to center attention on the needs of students and to expect each teacher to be interested in students as individuals. In keeping with this trend, home-room and classroom teachers should assume responsibility for the day-by-day health supervision of the students in their charge.

Specific health courses should be provided in the secondary schools and should have a minimum time allotment of a daily period for at least one semester during

⁶Turner, op. cit., p. 356.

⁷National Conference for Cooperation in Health Education, op. cit., p. 16.

either the ninth or tenth grades and a similar amount of time in the eleventh and twelfth grades Health courses should be given in regular classrooms with classes comparable in size to those in other subject matter areas.⁸

In connection with health and safety instruction in the elementary school, Brownell contributes the following:

In the lower grades health instruction experiences center primarily around the child himself and his associations at home or at school. The qualified teacher utilizes the daily experiences of children for health and safety behavior, encourages the practice of desirable health habits, stimulates appropriate health attitudes, and helps the child to develop an understanding of his environment as it affects his own health and safety and the welfare of others.

Numerous opportunities within the daily experiences of lower-grade children contain valuable health implications. Problems associated with illness and cleanliness arise in connection with the daily observation of pupils by the teacher . . . Safety instruction relates to experiences on the playground, use of school utensils, or travel between the home and the school.

Time allotment for health and safety instruction in the elementary grades depends upon the type of school organization. In activity experience schools sufficient time is required to meet the growing health and safety needs and interests at this age. In schools organized by subjects the time approximates that given to any major subject in the curriculum.⁹

The secondary school represents the most significant place for effective health and safety instruction. Brownell states:

Effective health instruction in secondary schools requires well-defined administrative policies. First of all, health instruction deserves a position of prominence at least equal to that accorded other subjects

⁸Ibid., pp. 16-17.

⁹Brownell, op. cit., pp. 243-244.

in the curriculum. This indicates a daily period in senior high school for at least one semester, and preferably for two semesters . . . Only qualified teachers and counselors should assume responsibility for health and safety instruction in secondary schools.¹⁰

The National Committee on School Health Policies recommends:

Whenever possible, health courses should be given by teachers with special preparation and with certification in health education. If such teachers are required to teach in some other subject area, they should be licensed in that area too. Schools should make every effort to see that health instruction is given by teachers fully prepared and qualified; it should not be regarded as an incidental subject to be relegated to any teacher who has a light teaching load or a conveniently free period.¹¹

The minimum requirement of "At least forty minutes of additional time per week shall be devoted to health instruction in both elementary and secondary schools."¹² This time is in addition to the requirement for physical education and the requirement may be met by regular class work or correlated with other subjects. This requirement applies to all schools whether or not accreditation in health education is sought.

The minimum requirements of the Texas State Department of Education regarding qualification of teachers in health education are:

¹⁰Ibid.

¹¹National Conference for Cooperation in Health Education, op. cit., p. 17.

¹²Worley, Standards and Activities of the Division of Supervision and Accreditation of School Systems, Bulletin No. 507, 1948-1949, p. 78.

All beginning classroom teachers in elementary grades who direct any part of the physical and health education program must have six semester hours college credit in physical and health education in addition to other requirements for classroom duties.

Part-time teachers in physical and health education must have twelve semester hours in physical and health education.

A full-time teacher of physical and health education must have at least twenty-four semester hours of college credit in physical and health education.¹³

From the foregoing recommendations, the goal of curriculum building in health instruction and instruction in health education in the public schools should be as follows: (1) health and safety instruction taught in all grades; (2) instruction adjusted to needs of children; (3) health and safety instruction integrated and correlated with other subject-matter; (4) size and length of classes comparable to those for other subject-matter fields; and (5) special training and certification for teachers in health and safety education.

Criteria for Health Instruction

1. Health and safety instruction should be given in all grades of the public school and should be adapted to each grade level.
2. Health and safety instruction should be adjusted to meet the needs of the child in his total environment.
3. Health and safety instruction should be integrated

¹³Ibid., p. 79.

and correlated with other subjects and subject-matter as well as taught as a subject.

4. The size of classes in health and safety instruction and the time allotted for classes in health and safety should be comparable to those for other subject-matter fields.

5. Only qualified teachers should teach health and safety.

Health Service

The definition given to health service in this study has several parts: namely, to determine the health status of the child; to enlist his cooperation in health protection and maintenance; to inform his parents of the defects that may be present; to prevent disease; and to correct remediable defects. This definition may serve as a guide in the discussion of materials relating to health service.

In order to determine the health status of the school child, it seems evident that some specialists will have to assist in the examination of the pupils. In this respect the White House Conference states:

Though financial limitations and the size of the school unit are obviously conditioning factors in the school health program, no child in any public or private school in the United States today should be without the privilege of a minimum program of health service and education. Such a program will necessitate medical, nursing, and dental staffs, at least, with the addition of such workers as the health needs may indicate and economic conditions permit.¹⁴

¹⁴White House Conference on Child Health and Protection, The Administration of the School Health Program, pp. 16-17.

The National Committee on School Health Policies advocates the following policy regarding school health:

However, it remains the best policy for every school to have available the services of a school medical advisor, dental advisor, nurse, health coordinator, psychologist, nutritionist, and health educator.¹⁵

The United States Commissioner of Education in a report on a study of school health standards recommends that "the school should provide annually for a thorough examination of each boy and each girl."¹⁶ Turner says: "It would be ideal if all children could be given a thorough physical examination every year."¹⁷ This same idea is expressed by the National Committee of School on Health Policies:

Every effort should be made by the school to have special and required periodic examinations done by a private practitioner of medicine, preferably by the student's physician.

During their school years students should have a minimum of four medical examinations; one at the time of entrance to school; one in the intermediate grades; one at the beginning of adolescence; and one before leaving school.¹⁸

In regard to health examinations the White House Conference states:

The health examination which today is an essential feature in education, has three purposes:

¹⁵National Conference for Cooperation in Health Education, op. cit., p. 28.

¹⁶Annette M. Phelan, A Study of School Health Standards, p. 90.

¹⁷Turner, op. cit., p. 206.

¹⁸National Conference for Cooperation in Health Education, op. cit., p. 28.

To learn as accurately as possible the health condition of each individual child in order that the possibilities of healthful development may be understood, and that appropriate remedial and curative measures may be applied as needed.

To detect cases of communicable diseases in their early stages in order that proper precautions may be taken to protect other pupils and the rest of the community.

To furnish an effective occasion for health instruction of a personal and practical nature.¹⁹

The health service for the school is for the benefit of the child. All information should be recorded to prepare for definite knowledge of the child's progress. The White House Conference states: "Individual and cumulative health records should be kept, following each child throughout his school career."²⁰

Turner states:

The most important single record is the health record of the individual child. This is sometimes called the medical record . . . They contain space for recording family data, communicable disease experience and immunizations, the various physical defects and the status of growth, vision, hearing, teeth and diet. If a preschool health record of the child is available, it accompanies the school record or the essential facts are transferred to the school card.²¹

Brownell records the following information about health-examination records:

¹⁹White House Conference on Child Health and Protection, op. cit., p. 22.

²⁰White House Conference on Child Health and Protection, The School Child, p. 257.

²¹Turner, op. cit., p. 223.

Health-history and health-examination records go hand in hand. As the name implies, the health-examination record contains the notations made by the physician or dentist at the time of the periodic health appraisal, together with the results obtained in the correction of remediable defects.²²

The importance of complete and accurate school health records cannot be overlooked, and it seems that they will be of more importance in the future. The school should recognize the present needs of pupils and should anticipate their future needs. When the needs are known, the school should endeavor to meet them.

It seems necessary to have daily inspection of the pupils. This will protect the healthy pupils and safeguard the ill ones. The White House Conference states the matter as follows:

Daily health inspection for the prevention and control of communicable diseases must, therefore, be the responsibility of the classroom teacher. It is the responsibility of the nurse to help every teacher to make the sort of classroom inspection which will meet the needs of the group from day to day. The teacher should develop an attitude of watchfulness throughout the day, as well as during the first period of the day. Every child returning to school after an illness should be very carefully inspected by the nurse.²³

The importance of observations of pupils by teachers and nurse is recommended by Brownell in the following statements:

²² Brownell, op. cit., p. 165.

²³ White House Conference on Child Health and Protection, The School Child, p. 109.

Constant health observations by qualified teachers and nurses doubtless represent a most significant technique of evaluation. Applied to the health services, these observations relate to persistent defects which indicate the need for modified educational programs, change in pupil's health status which suggest the completion of or need for appropriate medical or dental care . . . matters which should be brought to the attention of the home, and items for emphasis in instructional programs.²⁴

The National Committee on School Health Policies states:

Teachers should be constantly alert to the possibility of pupils displaying signs and symptoms of a communicable disease at any time of the day. Continuous daily observation for the "danger signal" of beginning communicable disease is more valuable than a single morning inspection.²⁵

The most generally accepted relation of responsibility for daily inspection of pupils for the control of communicable disease is the teacher to principal to school nurse to school physician.²⁶

This quotation makes very clear the different persons that should be responsible for the inspection of the pupils. The teacher discovers the ill pupil and sends him to the principal. The principal refers the pupil to the nurse who makes an examination. If she thinks it is necessary, she sends the pupil to the school physician.

The school should have a policy of exclusion and should follow it. The White House Conference gives the following information regarding exclusion:

²⁴Brownell, op. cit., pp. 307-308.

²⁵National Conference for Cooperation in Health Education, op. cit., p. 22.

²⁶White House Conference on Child Health and Protection, The Administration of the School Health Program, p. 27.

Children with the following communicable diseases should not be permitted to remain in school:

common cold	scarlet fever
grippe	smallpox
influenza	venereal disease
tonsillitis	tuberculosis
whooping cough	trachoma
chickenpox	scabies
diphtheria	ringworm on exposed
measles	part of body
mumps	pediculosis
	impetigo ²⁷

Turner has this to say about exclusion:

Any pupil suspected of having a contagious, infectious, or quarantinable disease shall be sent home immediately by the principal. If this is a major communicable disease, the name and address of the pupil shall be reported to the local health department.²⁸

In connection with exclusion Phelan says, "An isolation room should be provided in all schools."²⁹ The Joint Committee on Health Problems also states, "Provisions should be made to isolate immediately children suspected of having contagious disease."³⁰

Authorities seem to agree that the school should have an isolation room and policy of exclusion that will protect the well children from the ill ones. School authorities should practice policies that will protect the health of the pupils.

²⁷Ibid., p. 27. ²⁸Turner, op. cit., p. 241.

²⁹Phelan, op. cit., p. 103.

³⁰Joint Committee on Health Problems in Education of the National Education Association and American Medical Association, Health Education, p. 65.

Medical opinion seems to favor immunization of children before they enter school, but since many children do not get this service before entering school, the school is obliged to offer a program of immunization. The Joint Committee on Health Problems recommends that:

Children should be immunized early in life, in all cases previous to school entrance, against whooping cough, diphtheria, tetanus, smallpox, and possibly other diseases. . . During the early school years the immunization will need to be repeated for some diseases, usually with small "booster" doses.³¹

The White House Conference states:

Every child should be vaccinated against smallpox and present a certificate to that effect before he is allowed to enter school and should be revaccinated at about the time of entrance into junior high school. The immunization program against diphtheria should receive the support of every teacher and parent, and the time should not be far distant when this process will be as generally required by law as is that of vaccination in most states. Every child should have the benefit of health science in the control of disease and should not be denied these privileges because of the ignorance or prejudice of his parents.³²

With reference to immunization Phelan states, "The school should provide for toxin-anti-toxin immunization."³³ However, authorities suggest that the immunization should be done by the family physician, but they also seem to favor the practice of immunization by the school whenever the occasion justifies the practice.

³¹Ibid., p. 65.

³²White House Conference on Child Health and Protection, op. cit., pp. 28-29.

³³Phelan, op. cit., p. 106.

Often parents will permit a child to come back to school before he is entirely recovered from some communicable disease or illness. Phelan recommends, "A physician's certificate satisfactory to the school authorities is essential for re-admission after a child has been absent because of illness."³⁴

Wood and Rowell state:

Either a physician's certificate satisfactory to the school authorities or a physical examination of sufficient amplitude to justify certification, is required customarily before permission is given to again resume work in the classroom.³⁵

Either practice suggested here will lessen the probability of a child's returning to school before all danger of contagion has disappeared. Schools should adopt a sound policy regarding re-admission of pupils after absence caused by illness.

It is implied that a complete health examination includes a dental examination as well as other examinations. However, Phelan says, "The school should provide a complete dental examination for each child once a year."³⁶

The White House Conference recommends that, "Each child should have a complete dental examination twice annually.

³⁴ Ibid., p. 211.

³⁵ Wood and Rowell, Health Supervision and Medical Inspection of Schools, p. 121.

³⁶ Phelan, op. cit., p. 101.

Such a program is rather heavy for the school to finance. However, the school can promote this program by education of the parents."³⁷

The National Committee on School Health Policies states:

Dental care programs should provide a complete dental treatment for as many of the eligible children as possible. If funds and personnel do not permit this for the whole group, treatment should begin with the youngest group and work upward as far as possible. At the same time emergency treatment should be provided for the older children.³⁸

Authorities agree that the school should provide complete dental examinations, but they seem to disagree as to the extent to which the school should go with remedial or curative measures. Financial limitations may prevent the school from offering an ideal program of remedial or curative treatment.

Whenever necessary, the school should acquaint the parents regarding the health of the child. The White House Conference on Child Health and Protection states:

A report of the examinations should be made to all teachers and other school workers who come in contact with the child. If the parents are not present, as soon as possible after the examination they should be informed of the conditions discovered in the school health examination which seem to need attention.³⁹

³⁷White House Confernece on Child Health and Protection, The Administration of the School Health Program, p. 24.

³⁸National Conference for Cooperation in Health Education, op. cit., p. 32.

³⁹White House Conference on Child Health and Protection, The Administration of the School Health Program, p. 24.

Wood and Rowell recommend that,

All children who appear to need more careful and expert inspection should be given a note showing why they are referred and then sent to the principal or nurse for further examination.⁴⁰

Information and slips sent to the home urging treatment of minors are best received when they are brief, easily understood, and are tactful.⁴¹

The National Committee on School Health Policies suggests:

Parents should be notified when a serious communicable disease has occurred among their child's classmates. The notification, effectively by letter, should outline preventative measures, suggest early signs and symptoms of the disease and urge that children exhibiting these signs be kept at home.⁴²

The foregoing statements indicate the cooperation that should exist between the school and the home in the interest of the health of the child. The school health program could not hope to succeed without the cooperation of the parents.

The teachers have the additional duty of making screening tests for vision and hearing and to supervise the weighing and measuring of children. In this respect the National Committee on School Health Policies states:

In addition to everyday observations, the classroom teacher should also be prepared to give screening tests for vision and hearing . . . Vision tests

⁴⁰ Wood and Rowell, op. cit., p. 113.

⁴¹ Ibid., p. 116.

⁴² National Conference for Cooperation in Health Education, op. cit., p. 20.

should be annually in the elementary and secondary schools. Hearing tests should be given every year in the elementary school, and every two years in high school, preferably with an audiometer. All pupils should have vision and hearing tests.⁴³

The White House Conference recommends that classroom teachers give screening tests. The report states that, "when the service of a physician is not available for a yearly health examination, a health-screening or inspection can be made by the classroom teachers."⁴⁴

Turner states:

Health inspections for vision and hearing conditions are commonly made by teachers and by nurses. These inspections by non-medical persons frequently reveal the existence of certain abnormalities which may require medical attention.⁴⁵

These data reveal that teachers not only may make the screenings for vision and hearing, but they do the work with some degree of excellence.

Reference has been made in these data to the school nurse, but the basis for determining whether to employ a nurse has not been given. Oberteuffer states that "One of the major steps which any school can take toward the establishment of a complete and practical school health program

⁴³National Conference for Cooperation in Health Education, op. cit., pp. 26-27.

⁴⁴White House Conference on Child Health and Protection, The Administration of the School Health Program, p. 23.

⁴⁵Turner, op. cit., pp. 205-206.

would be to employ a nurse. It is estimated that a nurse can serve 1,500 to 2,000 students.⁴⁶

The White House Conference recommends:

The frequently accepted standard of one nurse for approximately every two thousand pupils is being found unsatisfactory. The present tendency is to reduce the ratio to 1,500 for each nurse.⁴⁷

Senate Bills, Nos. 115, 116, and 117 as passed by the Fifty-First Legislature of the State of Texas made the following provision:

Special service teachers, among which shall be included school nurses . . . District which have twenty or more approved classroom units shall be eligible for (1) one special service teacher for each twenty classroom teacher units.⁴⁸

Under this law the ratio is one school nurse for approximately 500 pupils. This is far better than the standard recommended by most authorities.

In this section dealing with health service, data are presented regarding the different phases of health service. These data concern the following: (1) provisions for annual or periodic health examinations; (2) individual and cumulative health records; (3) daily inspection of pupils by teachers; (4) isolation and exclusion of ill pupils; (5)

⁴⁶Delbert Oberteuffer, School Health Education, p. 335.

⁴⁷White House Conference on Child Health and Protection, op. cit., p. 18.

⁴⁸Senate Bills, Nos. 115, 116, and 117, Fifty-First Legislature of the State of Texas, pp. 12-13.

immunization of school children; (6) re-admission of pupils after illness; (7) annual dental examination of pupils; (8) informing parents about children's health condition; (9) screening tests for vision and hearing; and (10) basis for school nurse.

Criteria for Health Service

1. The school should provide for annual or periodic health examinations for all pupils.
2. The school should provide for complete, individual and cumulative health records for each child.
3. The teachers should make daily health inspection of all pupils.
4. The school should provide for isolation and exclusion of all ill pupils.
5. The school should provide for immunization of all pupils who need immunizing.
6. A physician's certificate or approval should be required for re-admission of any pupils after absence caused by illness.
7. The school should provide for an annual dental examination for each pupil.
8. The school should inform parents about the physical health of their children.
9. Classroom teachers should make preliminary tests for vision and hearing.

10. The school should provide one school nurse for approximately 1,500 pupils.

Physical Education

Physical education is that part of the general education program which makes its particular contribution to the life and development of the child from the physical point of view. Physical education and health education have been thought of as one and the same thing. They are related and share a common goal--the development of health--but physical education is concerned largely with the development of the child through the medium of big-muscle activities. Play and physical education contribute much to the health of the children but to assure the greatest values from such activities certain precautions and protective measures should be followed.

It seems that the need for physical education in the public schools is evident when consideration is given to the great number of men who were rejected for military service in the armed forces during World Wars I and II. The need for physical fitness is apparently as great for girls and women as it is for boys and men. When the need for physical fitness is considered, it seems only wise that physical education be required of all pupils enrolled in the public schools.

The National Conference for Cooperation in Health Education states:

All pupils should be enrolled in physical education classes; those who by reason of illness or disability are unable to participate in the more vigorous forms of activity should be assigned to modified activity or to rest, but with full credit in any case.

Pupils in the elementary school should participate daily in a guided program of play and physical education activities . . . Furthermore, when they reach junior and senior high school, students should be scheduled for daily periods of physical education, the time for which should be sufficient to allow students to change to appropriate clothing and to have reasonable period of activity followed by a shower.⁴⁹

Oberteuffer states:

Experience is showing that the best results in terms of the health of participants will accrue if all students in school and college receive instruction every year in physical education activities.⁵⁰

Oberteuffer makes this additional comment:

No child, no high school or college student should ever be "excused" permanently from physical education. Given adequate information about the student and medical advice as to his possibilities and limitations, a physical educator should and does proceed to construct a program in the light of the needs and capacities of the student.⁵¹

Byrd in his yearbook on health instruction says:

In those communities where graded types of physical education activities adapted to the varying needs of pupils are available in the school, permanent and blanket excuses from physical education should rarely if ever be given.⁵²

Wood and Rowell in their survey further confirm this classification by saying that "certain individuals should

⁴⁹National Conference for Cooperation in Health Education, op. cit., p. 33.

⁵⁰Oberteuffer, op. cit., p. 359. ⁵¹Ibid., p. 200.

⁵²Oliver E. Byrd, Health Instruction Yearbook (1948), p. 215.

not participate in the regular physical education program but should be assigned to the type of work they need."⁵³

The Joint Committee on Health Problems summarize their recommendations for classification as follows:

Students should choose or be assigned physical activities in accordance with their entering or subsequent medical examinations and no activities should be prescribed or elected except as their physical status warrants. All pupils should be enrolled in physical education; those who by reason of illness or disability are not able to participate in the more vigorous forms of activity or are to rest, should be given full credit in any case. Where such provisions are made, no pupil need be excused from physical education. Assignment to modified programs of physical education, including corrective physical education, should be based on a physician's recommendation, and such specialized program should be taught by qualified teachers and supervised by the school's medical adviser.⁵⁴

The Texas Handbook of Instruction for Health Education and Physical Education for Junior and Senior High Schools recommends:

Each boy and girl should receive daily instruction in physical education in which the teaching of skills, attitudes, knowledge, safety practices, and related health instructions are stressed.

Class periods should be at least the same length as are periods for other subjects.

All students in school should be enrolled in one of four health classifications for instruction. Students, who by reason of illness or other disability are unable to participate in unrestricted activities, should be assigned to restricted activities, or to remedial activities, or to rest as may be indicated

⁵³ Wood and Rowell, op. cit., p. 39.

⁵⁴ Joint Committee on Health Problems in Education of the National Education Association and American Medical Association, Health Education, p. 169.

and with full credit in each case. No student need be excused from physical education when this type of program is maintained.

Students should be classified for participation in physical education in accordance with their health status, by grade level, and by ability. Four health classifications previously mentioned are recommended, namely: unrestricted, as to strenuousness of activity; restricted to class work of less than maximum strenuousness; remedial programs for those needing special exercises; and rest for those who must have no exercise.

Although interschool athletics is an integral part of physical education, students should not be allowed to substitute participation in athletics for class instruction, except to a limited extent. The practice of allowing boys to go through high school and receive instruction in football and one or two other sports only is not educationally sound . . .

Content of the program in junior and senior high schools should be broad and varied . . .

Instruction in physical education should receive equal recognition with other subject fields in the curriculum. Credit should be allowed for physical education and required for graduation from high school . . .

Adequate facilities, equipment and supplies are essential if full benefits of physical education are to result. . . If reasonable class sizes are maintained, there will be needed one floor area for each 250 boys and one for each 250 girls enrolled in daily periods.

Equipment and supplies should be provided in sufficient amounts to provide optimum activity by all students in a class. Lack of adequate laboratory materials, balls, bats, nets, mats, and etc., is a waste of time and money and restricts pupil achievement. Supplies and equipment should be provided by boards of education from funds budgeted for class instruction.

Class sizes should be kept small enough to allow abundant student activity and efficient teaching. Forty students per class period constitutes the maximum number desirable for class instruction in most activities.

Adequate locker, dressing, and shower rooms should be provided.

Qualified teachers of physical education are essential to good results. Such teachers should have a major

in physical education or at least enough professional training to meet State Department of Education Standards.⁵⁵

The American Association for Health, Physical Education and Recreation Committee recommends "One period per day for physical education, the length of the period to be consistent with established length of periods in the individual school."⁵⁶

Thus it may be seen from these various reports and recommendations that physical education is important and necessary for every individual pupil and not simply those pupils who are able to participate in the big-muscle activities. If physical education has a place in the curriculum, every school child should be entitled to share in its benefits.

The health and well-being of the pupils should be the first consideration in promoting athletic programs in the schools. Turner recommends:

All candidates for the school athletic teams should be examined by a doctor of medicine. The physician should state that the pupil is or is not physically fit to take part in designated sports. Examinations should be repeated each year, and approval for participation in one sport should not be transferable to more strenuous sports.⁵⁷

The National Committee on School in Health Policies states:

⁵⁵David K. Brace, Texas Handbook of Instruction for Physical Education for Health Education and Physical Education for Junior and Senior High Schools, State Department of Education, Bulletin No. 444, p. 7-10.

⁵⁶American Association for Health, Physical Education and Recreation Committee Report, "Adequate Program Standards," Journal of Health and Physical Education, October, 1946.

⁵⁷Ibid., p. 207.

Adequate medical examinations should be provided for all athletes at the beginning and as needed during each season of participation, together with medical service in all contests. Following an illness, the readmittance of a pupil to participation in athletics should be made on a physician's recommendation, and continued under his supervision.⁵⁸

To stimulate the program and to obtain optimum results, all courses in physical education should be given with full credit. Byrd sets this standard:

Credit shall be granted for health education and physical education on the same basis as for other courses receiving credit and required for promotion and graduation. State colleges and universities shall accept such credit as part of the entrance requirements.⁵⁹

The Texas State Department of Education makes the following requirements:

Schools that are accredited and those that are seeking to accredit programs of physical education and health education must meet the minimum standard.

Grant one unit in physical education, provided physical education classes meet for not less than an average of two and one-half 60-minute periods per week.⁶⁰

The Minimum Requirements for Physical and Health Education for all Public Schools of the State of Texas that apply to all schools whether or not accreditation in physical and health education is sought are as follows:

⁵⁸National Conference for Cooperation in Health Education, op. cit., p. 34.

⁵⁹Byrd, op. cit., p. 210.

⁶⁰Worley, op. cit., p. 79.

1. Each secondary school student must receive 120 minutes per week of class instruction in physical education each year adjusted to individual needs.

2. Each elementary school student must receive 150 minutes per week of adopted class instruction in physical education each year.

3. At least 40 minutes of additional time per week shall be devoted to health instruction in both elementary and secondary schools (either in regular health classes or correlated with other subjects).

4. All beginning classroom teachers in elementary grades who direct or teach any part of the physical and health education program must have six semester hours college credit in physical and health education in addition to other requirements for classroom duties.

5. Part-time teachers in physical and health education must have twelve semester hours in physical and health education.

6. All full-time teachers of physical and health education must have at least twenty-four semester hours of college credit in physical and health education.

7. In high schools, boys' physical education classes should be taught by a man and girls' classes should be taught by a woman. In cases of co-education activities it is desirable that both teachers be present.⁶¹

In Suggested Health Policies the following suggestions

on teacher-training are given:

Courses in personal and community health should be required for all prospective teachers. These courses, which are directed primarily toward helping the prospective teacher maintain or improve her health and augment her understanding and appreciation of personal and community hygiene.

Coaches should be bona fide members of the faculty, and preferably be trained and hold certificates as physical education teachers, knowing the fundamentals of each sport. Coaching is teaching.⁶²

⁶¹Worley, op. cit., pp. 78-79.

⁶²National Conference for Cooperation in School Health Education, op. cit., pp. 34-40.

The Committee on Adequate Program Standards recommends:

That the full-time teacher of physical education should have a bachelor's degree with health and physical education as a major, and the part-time teacher, a minor in health and physical education.⁶³

Byrd in his yearbook for 1948 states:

All teachers in the elementary and secondary schools should have adequate preparation in the field of health so that they may teach effectively and contribute to a well-integrated curriculum.⁶⁴

The National Committee on School Health Policies makes the following suggestions:

All girls' athletic activities should be taught, coached, and refereed by professionally prepared women leaders, and should be divorced entirely from any interscholastic athletic contest for boys.⁶⁵

Phelan recommends that the school should provide all necessary equipment for physical education. She says:

The school should provide suitable materials for instruction in health education. These materials should be readily accessible for the use of teachers and children.

The school should provide new and replacement materials on the request of the teachers.⁶⁶

The National Committee on School Health Policies recommends that "The best obtainable protective equipment should be provided for all participants and all reasonable precautions should be taken to prevent accidents."⁶⁷

⁶³Turner, op. cit., p. 295. ⁶⁴Byrd, op. cit., p. 213.

⁶⁵National Conference for Cooperation in Health Education, op. cit., p. 35.

⁶⁶Phelan, op. cit., p. 226.

⁶⁷National Conference for Cooperation in Health Education, op. cit., p. 35.

In discussing this section on physical education, data are presented to justify each of the following related phases of physical education. They are: (1) all pupils enrolled in the public schools should have physical education; (2) pupils should be classified as their physical status warrants; (3) daily instruction in physical education should be given; (4) length of class period and size of classes should be comparable to other classes; (5) all pupils in physical education classes should have annual physical examination; (6) physical education teachers should have a major in health and physical education; (7) boys' classes should be taught by men teachers; (8) girls' classes should be taught by women teachers; (9) credit should be given for creditable physical education work; (10) physical education should be required for graduation; (11) pupils engaging in school sports should be re-examined after illness; (12) schools should provide all facilities for physical education classes and (13) schools should provide all necessary equipment for physical education classes.

Criteria for Physical Education

1. The school should require all pupils enrolled in school to take physical education.
2. Classes in physical education should be arranged to care for the physical needs of each pupil.
3. Instruction should be offered daily in physical education.

4. The length of class periods for physical education should be at least as long as periods for other classes.

5. The number of pupils in a physical education class should not exceed a maximum of forty pupils.

6. Each student engaging in physical education should have a thorough, annual physical examination.

7. Teachers of physical education should have a major or at least twenty-four semester hours of training in health and physical education.

8. Boys' physical education classes should be taught by men.

9. Girls' physical education classes should be taught by women.

10. Courses in physical education should be required for graduation.

11. Pupils engaging in school sports should be re-examined after illness before continuing in the sport.

12. The school should provide facilities necessary for physical education.

13. The school should provide all equipment necessary for physical education.

School Feeding

In recent years the school feeding program has been developed in a new light, and the school authorities are beginning to recognize its educational value as well as its

value toward promoting more healthful living. In attempting to evaluate the lunch program of the school, it is necessary to develop criteria, and this necessitates making a study of reports and recommendations regarding the school lunch.

It seems that the school lunch originated because of a need for it. The National Conference for Cooperation in Health Education states that "the school should provide its pupils with lunch when the distance from school forces the child to remain at school during the noon hour."⁶⁸

In A Self-Survey of School Conditions and Activities the following statement appears:

A noon lunch at school may be necessary. It depends on the distance the children come to school. Where the children go home, a recess of one and one-half hours should be allowed.⁶⁹

The National Conference for Cooperation in Health Education states that "food service at school should be established primarily on the basis of need in each school situation."⁷⁰

In this modern day when the school children ride several miles on school busses to reach the school, it would not seem possible for them to go home to lunch.

⁶⁸National Conference for Cooperation in Health Education, op. cit., p. 13.

⁶⁹James Frederick Rogers, A Self-Survey of School Conditions and Activities, Safety and Health of the School Child, p. 17.

⁷⁰National Conference for Cooperation in Health Education, op. cit., p. 13.

If the school lunch is established, it seems only logical for it to be under the control of the school officials. In this respect Oberteuffer says, "it has become acceptable practice now for schools to operate one or more programs to provide meals or partial meals to the pupils."⁷¹

The most common school lunchroom today is one organized and subsidized by the Federal Government. In reference to this type of lunchroom, Oberteuffer says:

The sponsor (local school authorities) is responsible for operating the lunch program in the school. The sponsor provides facilities, equipment, supervision, labor, and additional funds needed for the program.⁷²

In reference to the lunchroom being controlled by the school, Brownell states:

The cafeteria director or supervisor may make significant contributions to health education . . . Few other persons employed by the board of education enjoy more favorable occasions to "practice what they preach."⁷³

In a Study of School Health Standards Phelan recommends:

The control of the school lunch should be entirely in the hands of the school authorities, should be managed by a person trained for her work, and supervised by the nutrition teacher or dietician.⁷⁴

The National Committee on School Health Policies recommends that "the school lunch program should be adequately supervised and fully utilize all educational opportunities."⁷⁵

⁷¹Oberteuffer, op. cit., p. 269. ⁷²Ibid., p. 270.

⁷³Brownell, op. cit., p. 343. ⁷⁴Phelan, op. cit., p.218.

⁷⁵National Committee on School Health Policies, op. cit., p. 13.

Turner further confirms this provision by saying that,

Administrative provision is needed for adequate supplies, equipment, and service. Those selected to be responsible for the preparation of food for the school lunch should know and apply simple facts of nutrition in meal planning.⁷⁶

There seems to be little doubt that the school lunch should be administered by the school so that competent help and properly balanced menus may be available to promote the successful operation of the project.

The amount and kind of food that should be provided for the children is described by Phelan as follows:

The lunch should provide approximately one third of the daily food requirements of every pupil, should be suitable, palatable, and attractive, and it should be served at a minimum cost. Profits should be looked upon with disfavor.⁷⁷

Turner sets forth the following requirements:

The food must be of good quality and well cooked, must be suitable for the child, and should be as inexpensive as good quality and proper preparation will permit. The food should offer good variety from day to day. One hot dish and one or two simple kinds of sandwiches, possibly with the addition of cooked fruits will be sufficient for a given day. Milk should always be served.⁷⁸

The atmosphere of the school lunchroom is one of the most important phases of the school feeding program aside from the food. In discussing this phase of the school feeding program, Phelan contends:

⁷⁶Turner, op. cit., p. 277.

⁷⁷Phelan, op. cit., p. 219.

⁷⁸Turner, op. cit., p. 277.

The lunchroom should be well-lighted, well-ventilated, attractive, and accessible. It should be free from noise, and confusion and should encourage proper selection of food, as well as provide a suitable atmosphere for an enjoyable meal.⁷⁹

The Joint Committee on Health Problems of the National Education Association has this to say:

The lunchroom atmosphere should approximate conditions found in the best public eating places and homes. The crashing and banging of dishes and trays and the shouting of children above the din is no more acceptable than the funeral calm imposed by some cafeteria directors or principals. Pleasant conversation, attractive surroundings, and sufficient time for eating contribute to emotional and social health as well as to happiness and nutrition.⁸⁰

The National Committee on School Health Policies recommends these things regarding the atmosphere of school lunchrooms:

Eating places in school should be pleasant rooms, ample in size and seating capacity to permit the leisurely eating of a noon meal by all pupils and teachers who are in the room at the same time. The dining room itself must be bulwarked by adequate kitchen facilities, proper refrigerating and cooking equipment, storage space, and waste disposal systems. Washrooms for teachers and pupils should of course be provided.

Sanitary regulations of the highest order should be enforced in school eating establishments, including all health department regulations concerning food establishments and food handlers . . . Regulations relating to sanitation and to the health of food handlers should be put in effect by the school medical advisor in cooperation with the director of food service.⁸¹

⁷⁹ Phelan, op. cit., p. 219.

⁸⁰ National Education Association of the United States, Health Education, p. 127.

⁸¹ National Committee on Health Policies, op. cit., p. 13.

Turner states that the lunchroom should meet regulations of state and local health authorities governing the health of persons who handle food. He says:

The serving of food in a school requires but sometimes fails to get perfection in sanitation. Essentials include good refrigeration, undamaged dishes, tables and counters without cracks scrubbed clean after every using, sterilization equipment used effectively on all eating utensils. Cooking and serving personnel must be free of communicable disease and must comply with the local sanitation codes of the state and city food handlers. State departments of health or of education frequently issue detailed standards for the sanitation of lunchrooms. They should be consulted and followed in every instance.⁸²

Phelan sets forth this standard in regard to undernourished children:

In communities where study or observation establish the fact that children are not receiving sufficient food, the school should furnish supplementary feeding at the period in the day when it seems to be most needed. The school will have to determine whether the need exists and what food best meets the needs.⁸³

According to Oberteuffer the importance of this plan has been recognized by the Federal and State governments through the passage of the National School Lunch Act. He gives this program as follows:

The President signed the National School Lunch Act on June, 4, 1946. In that act "It is . . . declared to be the policy of Congress, as a measure of national security to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of

⁸²Turner, op. cit., p. 277. ⁸³Phelan, op. cit., p. 219.

foods and other facilities for the establishment, maintenance, operation, and expansion of non-profit school lunch programs . . ."

The sponsor (local authorities) is responsible for operating the lunch program in the school. The sponsor provides facilities, equipment, supervision, labor, and additional funds needed for the program . . . A small amount may be charged the children for the lunch if they are able to pay.

The school lunch should provide nutritive value as well as satisfaction and enjoyment to the student. It should also help in the development of good eating habits.⁸⁴

From this act of Congress those children who are unable to pay for lunches and are suffering from malnourishment can be provided with free lunches. Such practices seem reasonable and just.

This study of school lunch may be summarized as follows:

- (1) schools should provide lunches for children;
- (2) school lunches should be under the control of the school;
- (3) schools should supply all facilities, equipment, supplies and service;
- (4) the school lunch should be a well-prepared, well-balanced meal;
- (5) school lunches should be prepared by trained supervisors or dieticians;
- (6) every sanitary regulation of state and local health departments should be observed;
- (7) school lunches should offer educational training;
- (8) school lunch-rooms should be operated on a non-profit basis; and
- (9) free meals should be provided for under-privileged and under-nourished pupils.

⁸⁴Oberteuffer, op. cit., pp. 269-270.

From these reports and recommendations regarding the establishing and operation of school lunch programs, appropriate criteria may be drawn for the purpose of evaluating school lunch programs.

Criteria for School Lunch Feeding

1. The school should provide lunch for every pupil.
2. The school lunchroom should be under the control of the school authorities.
3. The school authorities should provide all facilities, equipment and supplies necessary for the operation of the school lunchroom.
4. The school lunch should consist of food of good quality, well-prepared, and should be a balanced meal.
5. School authorities should enforce all state and local health department regulations concerning food establishments, and food handlers.
6. The school lunch menus should be prepared by a trained nutritionist or dietician.
7. The school lunchroom should offer opportunities for educational training of the pupils.
8. The school lunchroom should be operated on a non-profit basis although a small charge may be made for the lunch.
9. Free meals should be served to under-privileged and under-nourished pupils who are not able to pay for their lunches.

Health of Personnel

In the past the school systems have been more or less haphazard in regard to the health of their personnel. This phase of the health program is very important. Children should not be compelled to come in contact with ailing, cross teachers. It appears that more attention should be given to the health of school personnel.

In the following quotation Phelan suggests health examinations for teachers: "the school should provide a thorough health examination for all teachers in service. The examination should be made by the school physician."⁸⁵

Turner suggests the following set-up for physical examinations for personnel:

No school employee who is not in good physical condition and free from communicable disease should be permitted to work in direct contact with the boys and girls. This means a pre-employment examination for all school employees within six months prior to the date that work begins. A re-examination should be made if serious illness occurs after the original examination prior to starting work. The examination may be made by a licensed physician.⁸⁶

The National Educational Association of the United States recommends the following procedure for the health of teachers and other personnel: "Insistence on periodic health examinations of all school employees, including chest x-rays, represents sound administrative decision."⁸⁷

⁸⁵Phelan, op. cit., p. 222. ⁸⁶Turner, op. cit., p. 237.

⁸⁷National Education Association of the United States, Health Education, p. 84.

It seems only good policy to require health examinations of the teachers. A teacher with a communicable disease could spread the contagion just as readily as a child with the same disease.

Attention should be given to wholesome living and working conditions for teachers. The Health Education Council makes the following suggestions relative to these conditions:

Since health of the teachers, custodians, and other school personnel vitally affects the health of children, teaching and working conditions must be sanitary and safe⁸⁸

Williams and Abernathy maintain that "clean, sanitary and attractive surroundings with teacher toilets and rest rooms are essential to the welfare of both teachers and pupils."⁸⁹

Phelan recommends that "every school building should include teachers' rest rooms. Toilets and washrooms should be adjacent to the rest rooms."⁹⁰

The New York State Commission for Education also recommends that "improvement of sanitary conditions in schools, including provisions for rest place and rest time for teachers."⁹¹

⁸⁸ Ibid.

⁸⁹ Williams and Abernathy, Health Education in Schools, p. 300.

⁹⁰ Phelan, A Study of School Health Standards, p. 223.

⁹¹ Wood and Rowell, Health Supervision and Medical Inspection of Schools, p. 316.

These data lend evidence to the fact that wholesome working conditions should be available to the school personnel. School authorities should not permit unclean or unsanitary conditions to exist in the school plant.

It seems wise to permit school personnel to have a limited time allowance for sick-leave with pay and retirement provisions of old age. In this respect the National Education Association recommends, "generous sick leaves, . . . wholesome working conditions, and appropriate . . . retirement provisions contribute to the success of any school program."⁹²

Phelan suggests that, "the school should provide leaves of absence with some remuneration for recuperation and rest whenever the condition of the teacher warrants it."⁹³

The American Association of School Administrators has this to say about retirement of personnel: "until teachers are relieved of their dread of helpless, dependent old age, the mental and physical health of many of them will continue to suffer."⁹⁴

The National Education Association makes the following statement:

It is generally agreed that the good of the schools requires some financial support to be given to teachers

⁹²National Education Association of the United States, Health Education, p. 84.

⁹³Phelan, op. cit., p. 222.

⁹⁴Williams and Abernathy, op. cit., pp. 299-300.

who are absent because of illness . . . Almost any amount of sick pay can be justified by at least one working precedent.⁹⁵

The New York State Commission of Education recommends "More adequate provisions for pensions."⁹⁶ Furthermore, the Texas Legislature recognizes this need and makes provisions for retirement privileges for teachers. According to Article II, Section 48a, of the Texas Public School Law the provision for the Teacher Retirement System is as follows:

In addition to the powers given to the Legislature . . . it shall have the right to levy taxes to provide a Retirement Fund for persons employed in public schools, colleges and universities, supported wholly or partly by the State . . .⁹⁷

When improvements have been made in health and welfare of the teaching personnel, there will be an improvement in the health education program for the pupils. Mental stability will be abetted by liberal pension systems and fear of financial stress will tend to decrease.

In this discussion on health of personnel, data have been presented regarding different phases of the problem. Periodic health examinations for all school personnel is possibly the most important aspect of health of personnel. Other points of discussion were sanitary and clean working conditions, special rest rooms and toilets for teachers, and

⁹⁵National Education Association, Health in Schools, pp. 284-287.

⁹⁶Wood and Rowell, op. cit., p. 518.

⁹⁷Texas Public Law, The State of Texas, 1945, p. 1.

sick-leaves and retirement privileges for all school personnel. Criteria will be drawn from these data for use in evaluating health of personnel.

Criteria for Health of Personnel

1. The school should require annual or periodic health examinations of all school personnel.
2. The school should provide clean and sanitary working conditions for all school personnel.
3. The school should provide special rest rooms and toilets for its teachers.
4. Generous sick-leave privileges should be provided for all school personnel.
5. The school should provide appropriate retirement provisions for all school personnel.

First-aid and Safety

First-aid and safety should be included in any well-organized health education program. The Joint Committee on Health Problems in Education makes the following recommendation:

There should be in every school at least one person (and a substitute) to whom is assigned responsibility for applying first-aid measures in case of accident or illness. Besides immediate first-aid, the school has the responsibility of notifying parents and transporting pupils to their homes.⁹⁸

⁹⁸ National Education Association of United States, Health Education, p. 48.

In Suggested School Health Policies this recommendation is found:

Every school should have a planned, written program for the care of emergencies. In case of accident or sudden sickness, the school has the responsibility for (1) giving immediate care, (2) notifying parents, (3) getting pupils home, and (4) guiding parents, where necessary, to sources of treatment.⁹⁹

Oberteuffer states that:

First-aid and emergency cabinets must be provided and scattered at strategic spots around the school. Their contents must be fresh, up to date, and in accordance with the best standards of first-aid care. It is not necessary for every teacher to be expert at first-aid; however, one or two on each floor should be.¹⁰⁰

Brace recommends: "adequate and easily available first-aid equipment in each school and school bus. Teachers, bus drivers, and pupils should be trained in first-aid."¹⁰¹

Moore and Studebaker state that, "Proper arrangements for rendering first-aid should be developed in every school."¹⁰² This statement indicates a "must" in school administration.

Wood and Rowell make the following suggestions in their study:

First-aid treatment where injury is slight or when the family physician can not reach the child quickly, and the child would suffer if not given relief. Such

⁹⁹National Committee on School Health Policies, op. cit., p. 19.

¹⁰⁰Oberteuffer, op. cit., p. 311. ¹⁰¹Brace, op. cit., p. 3.

¹⁰²Moore and Studebaker, Organization and Administration of School Health Work, 1939, Bulletin No. 12, p. 39.

treatment is temporary only and should be given by the best available person.¹⁰³

The school should make every effort possible to maintain a good program for first-aid and emergency. Slackness should not be permitted in the safety program.

Although instruction in safe living should begin at home and be carried on constantly by parents, the school has a great obligation in providing safety for pupils. In this connection Phelan recommends the following necessary safety equipment: "Fire extinguishers, accessible and prominently exposed, should be provided for every 2,000 square feet of floor area. Fire alarms should be centrally located."¹⁰⁴

Oberteuffer makes the following suggestion:

Formulate and supervise a program of safety for the school including the emergency care program, fire drills, traffic supervision, and continuous inspection of buildings and grounds for danger spots and potential causes of accidents.¹⁰⁵

Turner recommends:

Planned and regular supervision of buildings and grounds provide for organized inspection for broken glass, holes, uneven surfaces, accumulation of trash, peelings, loose boards, etc.¹⁰⁶

Article 3959 of the Texas School Law provides: . . .
a school house two or more stories in height . . . shall be provided and equipped with at least one adequate fire escape . . .¹⁰⁷

¹⁰³Wood and Rowell, op. cit., p. 52. ¹⁰⁴Phelan, op. cit., p.212.

¹⁰⁵Oberteuffer, op. cit., p. 310. ¹⁰⁶Turner, op. cit., p. 306.

¹⁰⁷Texas School Law, p. 238.

Guide to Safe Living in Elementary Schools states, "Fire extinguishers should be available at strategic points throughout the building."¹⁰⁸ They are necessary for safety; furthermore, insurance premiums could probably be reduced if the school were equipped with an adequate number of fire extinguishers.

Oberteuffer recommends that the school should have:

. . . . a program of safety for the school building including emergency care program, fire drills, traffic supervision, and continuous inspection of buildings and grounds . . .¹⁰⁹

These regulations are designed to render the children's stay at school safe from fire hazards. The school program should include every precaution in insuring and in teaching safety.

The transportation of school pupils is one of the problems of the school to which attention regarding safety regulations must be constantly noted. In this respect Turner states: "Regular bus inspection, preferably semiannually, by state police and daily checks by the drivers is also essential to its maintenance and safe operation."¹¹⁰

Oberteuffer states:

All state and local standards for school bus driving must be met completely and without exception.

¹⁰⁸ Gordon Worley, Guide to Safe Living for Elementary Schools, p. 36.

¹⁰⁹ Oberteuffer, op. cit., p. 311.

¹¹⁰ Turner, op. cit., p. 307.

Drivers must be expert and without . . . handicaps which would lower their efficiency as drivers . . .¹¹¹

In summarizing these data on first-aid and safety, it seems clear that the school should have a definite program for care of emergencies. Some person or persons should be responsible for applying first-aid measures, and materials should be provided for use in first-aid. These materials should be placed at strategic spots in the school buildings and in school busses.

School buildings should be inspected for fire hazards. Fire escapes, fire extinguishers, and fire drills seem to be necessary items in the school's safety program. Some schools should have traffic supervision. All school grounds should be kept free of dangerous rubble. School busses should be inspected regularly, and bus drivers should be well trained.

Criteria for Health and Safety

1. The school should have a definite program for rendering first-aid.
2. Some teachers must be responsible for administering first-aid.
3. The school should provide first-aid materials.
4. First-aid materials should be placed at strategic places in each school building.
5. Each school bus should be provided with first-aid materials.

¹¹¹Oberteuffer, op. cit., p. 311.

6. Fire escapes should be provided for school buildings of two or more stories.
7. School buildings should be inspected for fire hazards.
8. Fire extinguishers should be provided for each school building.
9. Traffic supervision must be provided for schools where traffic hazards are present.
10. School grounds must be kept free of all dangerous rubble.
11. School busses should be inspected annually by the state police.
12. School bus drivers should be well-trained in the operation of school busses.

Summary

In this chapter attention has been centered around data necessary for establishing criteria for evaluating the health and safety education program of the schools of Montague County, Texas. A number of reports, studies, and authorities have been studied and excerpts that are pertinent to this present study are found in the data from which criteria are drawn. The chapter is divided into six parts. They are: (1) Health Instruction; (2) Health Service; (3) Physical Education; (4) School Feeding; (5) Health of Personnel; and (6) First-aid and Safety. Criteria for each section appear at the end of each section.

The criteria are formulated to represent standard practice for the entire United States. However, in a few instances some attention is given to Texas School Laws and regulations of the Texas State Department of Education. At times it has been necessary to choose an intermediate standard because authorities differ as to what the practice should be. In all cases more than one authority has been used to arrive at what is general practice.

CHAPTER IV

MEASURE OF SCHOOLS

The evaluation of any learning activity is actually a part of the activity itself. Since the functional value of any experience is not necessarily always an immediate result but rather a cumulative and far-reaching matter in its influence on learning and behavior, it is difficult at times to make an immediate evaluation. Health education authorities agree that the proper evaluation and measurements of a health education program are very difficult.

Different school systems have different problems and need different health emphases. Even if schools were more similar than they are, it would not be easy to agree upon a standard of perfect practice.¹

This difficulty of evaluation is further emphasized in the following statements:

Obviously, scientific factors in healthful living are a complicated process, impossible under vigorously controlled conditions. There is, however, a practical kind of evaluation of the healthful living which results from health education conceived as the total pattern of influences that affect the health of the individuals and communities.²

¹C.E. Turner, School Health and Health Education, p. 425.

²Association of Childhood Education, Healthful Living for School Children, p. 26.

This difficulty of measurement may be better understood if consideration is given to the numerous things associated with health, for it includes the possession of well-functioning organs, a strong body, immunity to infections, the ability to undergo strain, knowledge of health principles, and willingness of the individual to follow health principles. It is possible that the health of individuals is influenced by certain other factors that have direct or indirect effect upon the lives of people. It is probable that only a part of these influences are controllable, but it seems desirable to have some knowledge of these influences even though a means of measuring their power may not be humanly possible.

Locale of Montague County, Texas

A brief study of the locale of Montague County, Texas, appears necessary, for its area, people, schools, churches, economical status, and other factors appear to have an influence on the health of inhabitants of the county.

According to the Texas Almanac and State Industrial Guide³ Montague County was organized in 1857 and was named for Daniel Montague, an early Texas pioneer. The county includes an area of 937 square miles of sandy loam and red clay soils and is located in the northernmost part of the West-Crosstimber Belt of Texas. Montague County is bounded on

³Texas Almanac and State Industrial Guide, Dallas News, 1949-1950, p. 568.

the north by the Red River, on the east by Cooke County, on the south by Wise County, and on the west by Clay County. Post oak and mesquite trees cover much of the land, and ranch and dairy farming is predominant. Some parts produce corn, cotton, wheat, grain, sorghums, and hay. Peaches, melons, tomatoes, grapes and other truck products are grown, especially in the vicinity of Fruitland. A long growing season and an annual rainfall of approximately thirty inches make truck farming profitable. An agricultural experiment station located near Montague, the county seat, has created a scientific attitude toward farming and soil conservation. The Farm Bureau, an organization of farmers, seems to be well established in the county.

The population numbered 20,442 in 1940 and is predominantly white. Negroes are rarely seen in the county except as they travel across it.

The principal towns are Bowie, Nocona, Saint Jo, and Ringgold. Other smaller places are Forestburg, Montague, Stoneburg, Sunset, Spanish Fort, Fruitland, and Illinois Bend. A few remains may be found of several other towns--Mallard, Hardy, Dewey, Uz, and Belcherville. Nocona is especially noted for its manufacture of cowboy boots and leather goods. Bowie and Nocona are markets for farm products and delivery points for oil field equipment.

Oil production may be found in most areas of the county, and the production reached 6,388,110 barrels in the year 1949.

Tests are being made in scattered places, and increases in production may be expected.

Montague County has two hospitals, one in Bowie and the other in Nocona. Medical doctors have established practices in these towns as well as in Saint Jo. The Commissioner's Court has not established an organized county health unit, but a county health official has been appointed. This court has employed a farm agent and a home demonstration agent. Four "H" Clubs have been organized, and their club work is carried on in conjunction with the regular school program.

The people of Montague County seem to be no less active in church work than people of other areas. Each town has a number of churches, and others may be seen in rural sections of the county. In fact, a dilapidated church building in many instances is all that remains of what was once an inland town.

The number of school districts in Montague County has been reduced until only thirteen functioning districts remain. The districts having four-year affiliated high schools are Nocona, Bowie, Ringgold, Stoneburg, Prairie Valley, Saint Jo, and Forestburg.⁴ The other six schools, Capps Corner, Montague, Lone Star, Sunset, Brier Creek, and Salona, are elementary schools.

⁴Gordon Worley, Standards and Activities of the Division of Supervision and Accreditation of School Systems, Bulletin No. 507, 1948-1949, pp. 112-165.

Through a description of Montague County, Texas, some implications are made regarding the difficulty of making accurate health evaluations. It seems desirable to have some knowledge of the existence of certain hidden influences even though a measurement of their power may be beyond human possibility.

The criteria for evaluating the health and safety education program of the schools of Montague County are designed to measure factors of a practical nature. No attempt is being made to evaluate the more abstract influences affecting health and safety.

Health and Safety Instruction

To evaluate health instruction means to find out how effective the instruction has been in the lives of the students. With this idea in mind, an attempt will be made to evaluate the health instruction of the Montague County schools.

Health and safety instruction should be given in all grades of the public schools and should be adapted to each grade level.--The survey shows that 100 per cent of the schools of Montague County offer health and safety instruction in all grades with the work adapted to each grade level. This practice by the schools meets the standard satisfactorily, for the criterion is that health and safety instruction should be given in all grades of the public schools and should be adapted to each grade level.

Health and safety instruction should be adjusted to meet the needs of the child in his total environment.--

To make the school health program more meaningful to the students, the schools of Montague County are making use of many field trips in the study of health and safety. Table 1 reveals the findings in this respect.

TABLE 1

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY,
TEXAS, MAKING FIELD TRIPS IN THE STUDY OF
HEALTH AND SAFETY DURING THE YEAR
1949-1950

Trips	Schools	
	Number	Per Cent
Community dairies	9	69.23
Community factories	9	69.23
Water plants	9	69.23
Agricultural station	2	15.38
Hospital	1	7.69

It is significant that the thirteen schools of Montague County are not making full use of field trips in the study of health and safety so as to meet the needs of the child in his environment. Only one school visited a hospital, two made trips to an agricultural experiment station, and several others visited community dairies, factories, and water plants. Some schools are to be commended for their efforts, but on the whole the schools are not meeting the standard in adjusting the work to meet the needs of the child in his environment.

Another way for health and safety instruction to meet the needs of the child is for the teachers to have a share in formulating the course of study. The survey shows that all of the schools in Montague County permit the teachers to have a share in preparing the course of study so as to adjust or adapt the work to the needs of the child. The schools are meeting the standard of acceptable practice in this respect.

The survey reveals that the projects are being used in the study of health and safety. Table 2 shows the extent of this practice.

TABLE 2

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY
TEXAS, USING PROJECTS IN THE TEACHING OF
HEALTH AND SAFETY DURING THE YEAR
1949-1950

Projects	Schools	
	Number	Per Cent
Foods	11	84.62
Play	11	84.62
Sleep	6	46.15
Cafeteria	7	53.85
Honors (stars, etc. for minor achievements)	7	53.85
Clubs	3	23.08
Services of doctor	4	30.76
Services of nurse	6	46.15

The data included in the above table indicate that the majority of the thirteen schools of Montague County make use of some projects within the environment of the children to

meet their needs. Two of the thirteen schools or 15.38 per cent did not use any projects while other schools did make use of some projects. The standard for measuring this practice is not being met by all of the schools.

The school should provide necessary teaching aids and supplies for all instructional purposes. Such aids and supplies are valuable to the teacher in health and safety instruction.

The findings revealed that some visual aids were being used in health and safety instruction. Table 3 sets forth the findings.

TABLE 3

NUMBER AND PER CENT OF SCHOOLS IN MONTAGUE COUNTY,
TEXAS, USING VISUAL AIDS IN THE TEACHING OF
HEALTH AND SAFETY DURING THE YEAR
1949-1950

Aids Provided	Schools	
	Number	Per Cent
Charts	11	84.62
Films (16 mm.)	8	61.54
Strip films	8	61.54
Magazines	4	30.76
Library materials	11	84.62
Microscopes	7	53.85

The data reveals that eleven of the thirteen schools or 84.62 per cent use some visual materials while two schools or 15.38 per cent did not report the use of any aids in adjusting

the instruction of health and safety to the needs of the child in his total environment. Some schools may have sufficient teaching aids and supplies, but the standard is not met satisfactorily by all the schools of the county.

The questionnaire revealed that impetus is given to the health and safety program of instruction through some clubs and organizations. The influence of these organizations is a means of adjusting the instruction to meet the needs of the child in his environment. Table 4 shows the findings in this respect.

TABLE 4

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY, TEXAS, USING OUTSIDE ORGANIZATIONS IN THE TEACHING OF HEALTH AND SAFETY DURING THE YEAR 1949-1950.

Organizations	Schools	
	Number	Per Cent
Parent-Teacher Association	6	46.15
Mother's Club	2	15.38
American Legion	1	7.69
Highway Department	1	7.69

The significant thing about Table 4 is that the schools of Montague County are not making use of community organizations in promoting instruction in the public school. Six schools use the Parent-Teacher Association while only one makes use

of the American Legion or the highway department. In general, the standard is not being met by the schools of the county.

The preceding data are presented regarding the adjusting of health and safety instruction to meet the needs of the child in his total environment. The schools of Montague County do permit their teachers to share in formulating the course of study for health and safety education. However, it is found that the schools are below the standard in four instances. Little use is made of field trips and projects by some of the schools while other schools do not provide necessary visual aids, and many others do not include outside organizations and clubs in the curriculum of health and safety. The criterion that health and safety instruction should be adjusted to meet the needs of the child in his total environment has not been met by the schools of Montague County.

Health and safety instruction should be integrated and correlated with other subjects and subject-matter as well as taught as a subject.--The survey reveals that one or 14.28 per cent of the seven high schools of Montague County offers a course in health instruction without any correlation or integration. The remaining six or 85.72 per cent of the high schools teach health by correlating and integrating the instruction with other subjects and subject-matter.

The survey revealed that health and safety instruction in the elementary grades is taught in different ways. Table 5 shows some of these ways.

TABLE 5

NUMBER AND PER CENT OF ELEMENTARY SCHOOLS OF MONTAGUE COUNTY, TEXAS, USING CORRELATION, INTEGRATION, AND SUBJECT METHODS FOR TEACHING HEALTH AND SAFETY DURING THE YEAR 1949-1950

How Taught	Schools	
	Number	Per Cent
As a subject	8	61.54
As a subject and with some integration	2	15.38
As a subject and with some correlation	3	23.08

The data reveal that eight or 61.54 per cent of the elementary schools teach health and safety as a subject with no correlation or integration.

The high schools attempt to correlate and integrate health with other subjects and subject-matter. Neither the high schools nor the elementary schools meet the standard. The criterion is that health and safety instruction should be integrated and correlated with other subjects and subject-matter as well as taught as a subject.

The size of classes in health and safety instruction and the time allotted for classes in health and safety instruction should be comparable to those for other subject-matter fields.--The questionnaire reveals that in all the thirteen schools in Montague County the classes in health and safety instruction are comparable in size to those of other subject-matter fields.

Table 6 gives the findings regarding the length of class periods for health and safety instruction.

TABLE 6

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY,
TEXAS, USING DIFFERENT LENGTH CLASS PERIODS
IN THE TEACHING OF HEALTH AND SAFETY
DURING THE YEAR 1949-1950

Time	Schools	
	Number	Per Cent
45 minute classes	2	15.38
30 minute classes	4	30.76
20 minute classes	5	38.46
15 minute classes	2	15.38

The information contained in Table 6 reveals that two of the thirteen elementary schools have class periods for health and safety instruction that are less than twenty minutes in length. This appears to be shorter than the time allotted for other regular classes in the elementary school. The schools of Montague County are meeting the standard in regard

to the size of classes in health and safety instruction but they are below the standard required for length of class periods. The criterion is that the size of classes in health and safety instruction and the time allotted for classes in health and safety instruction should be comparable to those for other subject-matter fields.

Only qualified teachers should teach health and safety,--

The survey reveals that no teacher in the Montague County schools has more than a minor in health and safety. Only three teachers of health and safety have as many as twelve semester hours of training in that field. Two schools have teachers with no training in health and safety. The standard is not being met in this respect. The criterion is that only qualified teachers should teach health and safety.

In applying the criteria for health instruction, it is found that the program of health and safety instruction of the schools of Montague County are below the standard of acceptable practice established for the Nation. Only on two counts are the schools meeting the standard; however, several of the individual schools are meeting the standard very satisfactorily.

Health Service

To evaluate the worth of school health services and activities is similar to appraising instruction. The object is to learn how effective the procedures are and what results

are produced. In this section an effort is made to evaluate the health services of the schools of Montague County.

The school should provide for annual or periodic health examinations for all pupils.--The survey shows that some of the schools of Montague County are providing health examinations for the pupils. Table 7 gives the findings in this respect.

TABLE 7

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY,
TEXAS, GIVING HEALTH EXAMINATIONS DURING
THE YEAR 1949-1950

Frequency	Schools	
	Number	Per Cent
Biannual examination	2	15.38
Annual examination	6	46.15
Examined as deemed necessary	1	7.69
Re-examined special cases	8	61.54
No physical examination	4	30.77

The Table reveals that four or 30.77 per cent of the Montague County schools do not provide annual or periodic health examinations for the pupils. Two of the schools make biannual examinations while six others give annual examinations. Eight of the schools that make examinations also give re-examinations of special cases while one school follows the practice of making examinations whenever it is deemed

necessary. The schools are below the standard of accepted practice. The criterion is that the school should provide for annual or periodic health examinations of all pupils.

The school should provide complete, individual and cumulative health records for each child.--The survey shows that nine or 69.23 per cent of the schools in Montague County keep complete, individual and cumulative health records for each child. These cumulative health records are kept in the principal's office. The teachers' daily registers are the only individual records that are kept by two of the schools. The schools have not met the standard. The criterion is that the school should provide complete, individual and cumulative health records for each child.

The teachers should make daily health inspections of all pupils.--The survey shows that some teachers in the Montague County schools make daily inspection of the pupils. Table 8 reveals information regarding health inspections of pupils.

The information in Table 8 reveals that no inspections were reported in three or 23.08 per cent of the schools in Montague County. This practice by the schools is below the standard. The criterion is that teachers should make daily health inspections of all pupils. These careful inspections may result in the prevention of many serious illnesses and probable disruption of school.

TABLE 8

NUMBER AND PER CENT OF SCHOOLS IN MONTAGUE COUNTY, TEXAS,
REQUIRING TEACHERS TO MAKE DAILY HEALTH INSPECTIONS
OF PUPILS DURING THE YEAR 1949-1950

Items Observed	Schools	
	Number	Per Cent
Cleanliness	9	69.23
Eyes	9	69.23
Nose and throat	5	38.46
Grooming	5	38.46
General Appearance	5	38.46
Posture	2	15.38
Eating habits	1	7.69
Fallor	1	7.69
No inspection reported	3	23.08

The school should provide for isolation and exclusion of all ill pupils.--Isolation and exclusion practices of the schools of Montague County are revealed in the survey. Table 9 indicates the manner and extent of isolation and exclusion practices.

TABLE 9

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY, TEXAS,
REQUIRING ISOLATION AND EXCLUSION OF ILL PUPILS
DURING THE YEAR 1949-1950

Method	Schools	
	Number	Per Cent
Place sick pupil in isolation, notify parents	5	38.46
Send ill pupil home at once	3	23.07
No provision reported	5	38.46

The survey reveals that no provision is made for isolation and exclusion of ill pupils in five or 38.46 per cent of the schools in Montague County. Three schools send ill pupils home as soon as possible after they become ill, while five other schools provide some isolated place for ill pupils to stay while parents are being notified of their condition.

The standard is not met for five or 38.46 per cent of the schools which reported that no provisions are made for isolation and exclusion of ill pupils. The criterion is that the schools should provide for isolation and exclusion of all ill pupils.

The school should provide for immunization of all pupils who need immunization.--The survey reveals that many pupils who have not been immunized are not receiving immunization services from the schools. Table 10 gives the findings regarding immunizations.

TABLE 10

NUMBER AND PER CENT OF CHILDREN IN SCHOOLS OF MONTAGUE COUNTY, TEXAS, RECEIVING IMMUNIZATION SERVICES DURING THE YEAR 1949-1950

Kinds	Children	
	Number	Per Cent
Diphtheria	2550	70.59
Small Pox	2578	71.83
Typhoid fever	2567	71.03
No vaccinations	1036	28.61

The survey shows that 1,036 or 28.61 per cent of the pupils enrolled in the schools of Montague County have not been immunized, while more than 2,500 other pupils are being immunized for diphtheria, small pox and typhoid fever.

The standard for immunization is not being met by the schools. The criterion is that the school should provide immunization for all pupils who need immunizing.

A physician's certificate or approval should be required for readmission of any pupil after absence caused by illness.--
The survey reveals different practices with regard to readmission of pupils after absence caused by illness. Table 11 gives the practices revealed in the survey.

TABLE 11

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY,
TEXAS, WITH POLICIES OF READMISSION AFTER
ABSENCE CAUSED BY ILLNESS DURING THE
YEAR 1949-1950

Method	Schools	
	Number	Per Cent
By doctor's certificate or approval	4	30.77
By approval of nurse	5	38.46
No method reported	4	30.77

The information in Table 11 reveals that four or 30.77 per cent of the schools of Montague County did not report any policy of readmission of pupils after absence caused by illness.

The schools are not up to the standard. The criterion is that a physician's certificate or approval should be required for readmission of any pupil after absence caused by illness.

The school should provide for an annual, dental examination for each pupil.--The survey shows that nine or 69.23 per cent of the schools of Montague County provide annual dental examinations for all pupils. The remaining four or 30.77 per cent of the schools do not provide for dental examinations. The standard is not met by the schools. The criterion is that the school should provide for an annual, dental examination for each pupil.

The school should inform parents about the physical health of their children.--The survey reveals that nine or 69.23 per cent of the schools in Montague County inform parents regarding the physical health of their children by sending notes to the parents or by personal interviews. The remaining four or 30.77 per cent of the schools do not inform the parents about the health of their children. The schools have not met the standard. The criterion is that the school should inform parents about the physical health of their children.

Classroom teachers should make preliminary tests for vision and hearing.--The survey reveals that in seven or 53.85 per cent of the schools in Montague County the classroom teachers make observations for vision and hearing.

If the child indicates that he does not see well or if he asks for statements to be repeated, he is seated near the front of the room. If vision or hearing difficulties are still indicated by the pupil, the teacher reports that scientific tests should be made regarding vision and hearing. The remaining six or 46.15 per cent of the schools made no report. The criterion is that classroom teachers should make preliminary tests for vision and hearing. The standard is not met by the school.

The school should provide one school nurse for approximately 1,500 pupils.--The survey shows that some of the smaller schools of Montague County have cooperative plans enabling them to have the service of a school nurse. Otherwise, most of the schools would be too small to secure this service. Table 12 gives the findings relative to school nurses.

TABLE 12

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY,
TEXAS, HAVING THE SERVICES OF A SCHOOL NURSE
DURING THE YEAR 1949-1950

Provision	Schools	
	Number	Per Cent
Full time nurse	1	7.69
Nurse for three days per week	1	7.69
Nurse one day per week	6	46.15
No provision for nurse	5	38.46

The significant thing about Table 12 is that five or 38.46 per cent of the schools of Montague County have not availed themselves of the opportunity of having a school nurse. Furthermore, Table 12 shows that a total of seven schools have part-time services of a school nurse. Reference is made earlier in this study to a provision in the school laws of the State of Texas which permits school boards of school districts having fewer than twenty classroom teacher units to cooperate with other school districts in order to secure sufficient classroom teacher units to meet the requirements of the law. The seven schools having part-time services of a school nurse are taking advantage of this legal provision. One other school has a full-time school nurse; but the standard is not met by the schools of the county, for five or 38.46 per cent of the schools make no provision for a school nurse. The criterion is that the school should provide one school nurse for approximately 1,500 pupils.

The object of the evaluation of health service is to see how effective the program of health service has been in the lives of the students. The criteria established for the purpose of measuring health service consist of ten units.

When the instrument of measurement was applied to the practices of health service, it was found that the schools of Montague County did not meet the standard in a single instance. Several schools are meeting certain criteria in health service,

but since a few schools have no health service program, the schools of the county as a whole are below the standard of good practice.

Physical Education

The appraisal of physical education is done for the purpose of determining how close the practices are to the objectives of physical education. When money is being spent, and the health of children is at stake, the things being done must prove useful. Therefore, it is profitable for a school system to study what is being done in the light of what could be done and to evaluate its procedures in terms of the best approved practices.

The school should require all pupils enrolled in school to take physical education.--The survey shows that no school in Montague County requires that all pupils enrolled in school take physical education. Reference is made earlier in this study to the legal requirement that physical education be taught in the public schools of the State of Texas. Schools that do not require each student to take physical education are not meeting the legal requirement fully, and they do not meet the standard of good practice. The criterion is that the school should require all pupils enrolled in school to take physical education.

Classes in physical education should be arranged to care for the physical needs of each pupil.--No school reports

that its physical education program is designed to take care of the physical needs of each pupil. It is stated earlier in this present study that each pupil enrolled in the public schools of the State of Texas should be classified for participation in physical education in accordance with his health status, by grade level, and by ability. No corrective programs or graded programs of this nature are reported by any school. The standard is not met by a single school. The criterion is that classes in physical education should be arranged to care for the physical needs of each pupil.

Instruction should be offered daily in physical education.--The survey reveals that ten or 76.92 per cent of the schools of Montague County offer daily instruction in physical education. The schools do not meet the standard. The criterion is that instruction should be offered daily in physical education.

The length of class periods for physical education should be at least as long as periods for other classes.--The survey reveals information regarding the length of class periods for physical education. Table 13 gives the findings in this respect. The information in this table shows that one or 7.69 per cent of the schools in Montague County has a period for physical education that is shorter than the average class for other subjects. The standard time for a class period is reported to be forty-five minutes. In this instance

TABLE 13

NUMBER AND PER CENT OF SCHOOLS OF MONTAGUE COUNTY,
TEXAS, GIVING LENGTH OF CLASS PERIODS FOR
PHYSICAL EDUCATION DURING THE
YEAR 1949-1950

Classes	Schools	
	Number	Per Cent
75 to 90 minutes	3	23.08
60 to 75 minutes	4	30.77
45 to 60 minutes	2	15.38
30 to 45 minutes	1	7.69

all except one of the schools are meeting the standard. The criterion is that the length of the class periods for physical education should be at least as long as periods for other classes.

The number of pupils in a physical education class should not exceed a maximum of forty pupils.--The survey reveals information regarding the size of classes in physical education. This information is contained in Table 14. The information shows that no school reports classes in physical education that are as large as forty pupils; however, three or 23.08 per cent of the schools did not make a report. The standard is not by the schools. The criterion is that the number of pupils in a physical education class should not exceed a maximum of forty pupils.

TABLE 14

NUMBER AND PER CENT OF SCHOOLS IN MONTAGUE COUNTY,
TEXAS, WITH SIZE OF CLASSES IN PHYSICAL
EDUCATION DURING THE YEAR 1949-1950

Pupils	Schools	
	Number	Per Cent
30 or more pupils	3	23.08
20 to 30 pupils	3	23.08
10 to 20 pupils	3	23.08
Fewer than 10 pupils	1	7.69
No report	3	23.08

Each student engaging in physical education should have a thorough, annual, physical examination.--The survey shows that nine or 69.23 per cent of the schools in Montague County require that students engaging in physical education have a thorough, annual, physical examination. The standard is not met by the school. The criterion is that each student engaging in physical education should have a thorough, annual, physical examination.

Teachers of physical education should have a major or at least 24 semester hours of training in health and physical education.--The survey reveals information regarding the amount of training of the instructor of physical education in the schools of Montague County. Table 15 gives these findings. The table shows that five or 38.46 per cent of the schools of Montague County have physical education instructors

TABLE 15

NUMBER AND PER CENT OF SCHOOLS IN MONTAGUE COUNTY,
TEXAS, HAVING PHYSICAL EDUCATION INSTRUCTORS
AND THE EXTENT OF THEIR TRAINING IN
THE YEAR 1949-1950

Training	Schools	
	Number	Per Cent
24 semester hours or more (major)	5	38.46
18 to 24 semester hours	1	7.69
12 to 18 semester hours	2	15.38
6 to 12 semester hours	1	7.69
Less than 6 semester hours	4	30.77

with a major or at least twenty-four semester hours of training in health and physical education. The remaining eight schools have physical education teachers with various amounts of training in physical education. Four of these teachers have fewer than six hours of training. The schools of the county do not meet the standards. The criterion is that teachers of physical education should have a major or at least twenty-four semester hours of training in health and physical education.

Boys' physical education classes should be taught by men.--The survey reveals that 100 per cent of the boys' classes in physical education in the schools of Montague County are taught by men. The schools meet the standard. The criterion is that boys' physical education classes should be taught by men.

Girls' physical education classes should be taught by women.--The survey reveals that four or 30.77 per cent of the schools of Montague County have men instructors who teach girls' classes in physical education. The standard is not met by the schools. The criterion is that girls' physical education classes should be taught by women.

Courses in physical education should be required for graduation.--The survey reveals that 100 per cent of the schools of Montague County do not require courses in physical education for graduation. The implication is not that all the students graduate without any training in physical education, for the data show that nine schools offer such training. It is implied, however, that the legal requirement is met by choice of the students rather than by requirement of the schools. The standard is not met by all of the schools. The criterion is that courses in physical education should be required for graduation.

Pupils engaging in school sports should be re-examined after illness before continuing in the sport.--The survey reveals that 100 per cent of the schools of Montague County require that pupils be re-examined after illness before continuing in the sport. The schools of Montague County are meeting this standard. The criterion is that pupils engaging in school sports should be re-examined after illness before continuing in the sport.

The school should provide facilities necessary for physical education.--The survey reveals information regarding facilities provided by the school for physical education. Table 16 records this information.

TABLE 16

NUMBER AND PER CENT OF SCHOOLS IN MONTAGUE COUNTY,
TEXAS, FURNISHING FACILITIES FOR PHYSICAL
EDUCATION AND NATURE OF FACILITIES
IN THE YEAR 1949-1950

Facilities	Schools	
	Number	Per Cent
Gymnasium	8	61.54
Football fields	3	23.08
Basketball courts	10	76.92
Volleyball courts	10	76.92
Baseball diamonds	8	61.54
Track fields	4	30.76
Scoreboards, electric or mechanical	8	61.54
No facilities provided	3	23.08

Table 16 shows that three or 23.08 per cent of the schools of Montague County do not provide any facilities for physical education. The schools are below the standard.

The survey reveals that six or 46.15 per cent of the schools of Montague County do not provide showers for convenience of pupils taking physical education. The standard is not met by the school.

On the preceding page data are given regarding facilities for physical education in Table 16 and regarding showers for the convenience of the pupils taking physical education. The schools are below the standard in respect to both of these items. The criterion is that the school should provide facilities necessary for physical education.

The school should provide all equipment necessary for physical education.--The survey shows that eight or 61.54 per cent of the schools of Montague County provide equipment necessary for physical education. The standard is not met by the schools. The criterion is that the school should provide all equipment necessary for physical education.

The evaluation of physical education is made according to data obtained in the survey. The criteria consist of thirteen different standards. In making the evaluation it is noted that the standards are met by the schools of Montague County in two ways, but they failed to meet the standard of good practice in eleven cases. Even though the general practice is below the standard recognized in the United States, the schools approached the standard in several instances. One important standard is worthy of mention. The schools of Montague County met the standard requiring re-examinations for students who have been ill before permitting them to continue in any sport.

School Feeding

Possibly the most important single phase of the school health program is the school lunch. The Federal government recognized this fact when Congress passed the National School Lunch Act referred to earlier in this study. Equally important as having the school lunch is having the right kind of school lunch. The need for evaluating the school lunch is apparent, and the school lunch should meet the highest standard recommended by departments of health.

The school should provide lunch for every pupil.-- The survey reveals information regarding the sources of school lunch of the pupils in Montague County. Table 17 gives this information.

TABLE 17

SOURCES OF NOON LUNCH OF THE PUPILS IN THE PUBLIC SCHOOLS OF MONTAGUE COUNTY, TEXAS, AND THE NUMBER AND PER CENT OF PUPILS USING THE DIFFERENT SOURCES DURING THE YEAR 1949-1950

Sources	Children	
	Number	Per Cent
School cafeteria	1285	35.64
Public cafe	541	15.01
Go home for lunch	544	15.09
Bring lunch from home	1235	34.26
Given free lunch	56	.015

The table reveals that 1285 or 35.64 per cent of the pupils in the schools of Montague County receive their noon lunch in school cafeterias. A significant item of Table 17 is that 1235 pupils bring their lunches from home. The data imply that the schools may not be providing for all the needs of the pupils. Another item to which attention is called is the very small per cent of children who are served free lunch. It appears that additional study should be given to this phase of the lunch program. The schools are below the standard. The criterion is that the school should provide lunch for every pupil.

The school lunchroom should be under the control of the school authorities.--The survey reveals that 100 per cent of the school lunchrooms of Montague County schools are under the control of school authorities. The inference is that school authorities should not rent or lease school lunch facilities or equipment to some independent operator. The schools meet this standard. The criterion is that the school lunchroom should be under the control of the school authorities.

The school authorities should provide all facilities, equipment, and supplies necessary for the operation of the school lunchroom.--The survey shows that the school authorities are providing 100 per cent of the facilities, equipment, and supplies necessary for the operation of the school lunchroom. The schools are meeting this standard. The criterion

is that the school authorities should provide all facilities, equipment, and supplies necessary for the operation of the school lunchroom.

The school lunch should consist of food of good quality, be well-prepared, and be a balanced meal.--The survey reveals that 100 per cent of the schools operating lunchrooms serve quality foods that are well-prepared and designed to be well-balanced meals. The schools are meeting this standard. The criterion is that the school lunch should consist of food of good quality, be well-prepared, and be a balanced meal.

The school authorities should enforce all state and local health department regulations concerning food establishments and food handlers.--The survey reveals that 100 per cent of the school lunchrooms have been inspected by the state health official and that 100 per cent of the food handlers have health certificates. The schools are meeting this standard. The criterion is that the school authorities should enforce all state and local health department regulations concerning food establishments and food handlers.

The school lunch menus should be prepared by a trained nutritionist or dietician.--The survey reveals that 100 per cent of the school lunch menus are planned by the home economics teachers or the trained lunchroom supervisors. The schools are meeting the standard. The criterion is that the school lunch menus should be planned by a trained nutritionist or dietician.

The school lunch should offer opportunities for educational training of the pupils.--The survey reveals that 100 per cent of the schools offer opportunities for teaching good table manners and eating habits. This standard is met by the schools. The criterion is that the school lunch should offer opportunities for educational training of the pupils.

The school lunchroom should be operated on a non-profit basis although a small charge may be made for the lunch.--The survey reveals that 100 per cent of the school lunchrooms in Montague County are operating on a non-profit basis as required by the government under the National School Lunch Act and that a small charge is made for the lunches. The schools are meeting this standard. The criterion is that the school lunchroom should be operated on a non-profit basis although a small charge may be made for the lunches.

Free meals should be served to under-privileged and under-nourished children who are not able to pay for their lunches.--The survey reveals that 100 per cent of the school lunchrooms provide free meals to children who are unable to pay for their lunches. The standard is met by the schools. The criterion is that free meals should be served to under-privileged and under-nourished children who are not able to pay for their lunches.

School feeding seems to be one of the most important phases of the school health program. Probably no other one

thing connected with the school needs evaluating any more often than does the school lunch. The school lunch is evaluated in the same general way as other school services.

The criteria for evaluating the program of school feeding consist of nine standards. It is found that the schools of Montague County meet all but one of these standards. Not every school in the county has a lunch program and, of course, the standard could not be met by the county as a whole.

Health of Personnel

It is only wise for the school personnel to enjoy all the health services that are made available to the children. If the school is operating a program that calls for health examinations of the children, it should require health examinations of the school personnel. If the children are to be isolated and excluded when they are ill, the same principle should apply to the school personnel. No teacher or school employee should begin his work in the school until he has received a health examination and correction of all ailments that may be present. If the program should include these features, it is well that some time be given to evaluation. High standards of practice should be met.

The school should require annual or periodic health examinations of all school personnel.--The survey reveals that no school in Montague County requires an annual or periodic health examination of its school personnel. The

schools do not meet the standard. The criterion is that the school should require annual or periodic health examinations of all school personnel.

The school should provide clean, and sanitary working conditions for all school personnel.--The survey shows that 100 per cent of the schools of Montague County provide clean and sanitary working conditions for all school personnel. The data show that building custodians are efficient in discharging their duties regarding house cleaning and sanitation. The standard is met by the schools. The criterion is that the school should provide clean and sanitary working conditions for all school personnel.

The school should provide special rest rooms and toilets for its teachers.--The survey reveals that one or 7.69 per cent of the schools of Montague County provides special rest rooms and toilets for its teachers. This standard is not met by the schools. The criterion is that the school should provide special rest rooms and toilets for its teachers.

Generous sick-leave privileges should be provided for all school personnel.--The survey reveals information regarding sick-leaves for teachers. Table 18 shows sick-leave privileges. The table shows that one or 7.69 per cent of the schools of Montague County grants sick-leaves with no pay, while three or 23.68 per cent of the Montague County schools make no provision for sick-leaves. The standard

TABLE 18

NUMBER AND PER CENT OF SCHOOLS IN MONTAGUE COUNTY,
TEXAS, GRANTING SICK-LEAVE PRIVILEGES TO
SCHOOL PERSONNEL DURING THE YEAR
1949-1950

Practices	Schools	
	Number	Per Cent
Sick-leave with full pay	3	23.08
Sick-leave with part pay	6	46.15
Sick-leave with no pay	1	7.69
No provision reported	3	23.08

for sick-leaves is not being met by the schools. The criterion is that generous sick-leave privileges should be provided for all school personnel.

The school should provide appropriate retirement provisions for all school personnel.---The survey reveals that 100 per cent of the schools of Montague County provide retirement privileges for its school personnel. It seems reasonable to accept the retirement privileges provided by the State of Texas as meeting this standard. Since this is a legal requirement, the standard is met by the schools. The criterion is that the school should provide appropriate retirement provisions for all school personnel.

It is stated earlier in this study that high standards of practice should be required with regard to health of school personnel. However, in actual practice it is found

that a very low standard of practice prevails. In evaluating the health of personnel of the schools of Montague County, the standard is reached on only one count.

First-aid and Safety

There seems to be a need for a three-fold program in regard to emergencies and accidents. The first phase of this program would involve preventing emergencies and accidents. The second phase would be educative in nature. Many emergencies and accidents would be avoided if proper instruction had been given. The last phase of this program would involve having a definite plan of action in case of an emergency or an accident did occur. Therefore, it seems only wise to evaluate occasionally to see if all these phases are receiving proper attention. Certainly they seem to need the attention of school authorities. Evaluations should be made to insure against negligence and forgetfulness.

The school should have a definite program for rendering first-aid.--The survey reveals that twelve or 92.31 per cent of the schools of Montague County have a definite plan for rendering first-aid in the case of an emergency. The schools did not meet the standard; however, they approached it. The criterion is that the school should have a definite program for rendering first-aid.

Some teachers in the school must be responsible for administering first-aid.--The survey reveals that twelve or

92.31 per cent of the schools of Montague County have some person who is responsible for administering first-aid. The data show that the principals of smaller schools are responsible for administering first-aid, but in the larger schools certain teachers are responsible for this work. The physical education teachers are responsible for the work in that department. The schools approached this standard but did not meet it. The standard is that some teachers in the school must be responsible for administering first-aid.

The school must provide first-aid materials.--The survey shows that twelve or 92.31 per cent of the schools of Montague County provide first-aid materials. The data show that one of the larger schools provides only a meager amount of first-aid materials. The standard is not reached by the schools. The criterion is that the school must provide first-aid materials.

First-aid materials must be placed at strategic places in each building.--The survey reveals that twelve or 92.31 per cent of the schools of Montague County have first-aid materials placed at strategic places throughout the buildings. The standard is not fully met. The criterion is that first-aid materials must be placed at strategic places in each school building.

Each school bus should be provided with first-aid materials.--The survey shows that 100 per cent of the school

busses in Montague County carry first-aid materials. The data show that the school busses carry enough first-aid materials to meet the legal requirements of the State of Texas. The standard is met by the schools. The criterion is that each school bus should be provided with first-aid materials.

Fire-escapes should be provided for school buildings of two or more stories.--The survey reveals five schools with buildings having two or more stories. Four or 80 per cent of the school buildings having two or more stories have fire-escapes that are in good repair. The data show that one school has a fire-escape that is in need of repair. Because of this need, the schools do not meet this standard fully. The criterion is that fire-escapes should be provided for school buildings of two or more stories.

School buildings should be inspected for fire hazards.--The survey reveals that 100 per cent of the schools of Montague County are inspected regularly for fire hazards. The data reveal that building custodians make the inspections and report findings to school officials. The standard is met by the schools. The criterion is that school buildings should be inspected for fire hazards.

Fire extinguishers should be provided for each school building.--The survey reveals that nine or 69.23 per cent of the schools of Montague County have fire extinguishers in

each school building. One school reports that fire insurance premiums are reduced if fire extinguishers are provided in sufficient number to meet rules and regulations of insurance companies. The schools do not meet this standard. The criterion is that fire extinguishers should be provided for each school building.

Traffic supervision must be provided for each school where traffic hazards are present.--The survey indicates that because of location four or 30.77 per cent of the schools of Montague County do not need traffic supervision. The standard is not met by the schools. The criterion is that traffic supervision must be provided for each school where traffic hazards are present.

School grounds must be kept free of all dangerous rubble.--The survey shows that 100 per cent of the schools of Montague County have school grounds that are free of dangerous rubble. The school meets this standard. The criterion is that school grounds must be kept free of all dangerous rubble.

School busses should be inspected annually by state police.--The data reveal that annual bus inspections are made soon after school begins. The county superintendent of schools arranges for this inspection and Texas Highway Patrolmen make a detailed inspection of the mechanical features of each bus. Special attention is given to all safety features and devices.

The survey reveals that 100 per cent of the school busses of Montague County are inspected annually by a state police. The schools meet this standard. The criterion is that school busses should be inspected annually by state police.

School bus drivers should be well-trained in the operation of school busses.--The survey reveals that 100 per cent of the school bus drivers of Montague County are well-trained in the operation of school busses. The data show that school bus drivers meet a one-day conference and Texas Highway Patrolmen instruct all drivers in the care and operation of school busses. The standard is met satisfactorily. The criterion is that school bus drivers should be well-trained in the operation of school busses.

The need for giving more attention to first-aid and safety seems apparent to everyone. The growth and development of the modern machine age needs to be met with a better program of education in safety. Hence, evaluating the present program of first-aid and safety seems necessary.

In making the proposed evaluation of first-aid and safety, criteria consisting of twelve separate standards are applied. It is found that the schools of Montague County are meeting the standard regarding first-aid and safety in five ways. In five other ways the schools approach the standard. When the remaining two measures are applied, it is found that the schools fall considerably below the standard. As a whole the

schools of Montague County are not up to the standard of good practice established for the entire nation.

Summary of Health and Safety Education

After completing the proposed evaluation of the health and safety education program of the schools of Montague County, Texas, it appears that the results of the findings should be compiled in a brief summary. The following results are found:

1. In general, the schools are not meeting the standard of acceptable practice for health instruction. The schools meet the criterion that health and safety instruction should be given in all grades of the public schools and should be adapted to each grade level. In the remaining four instances the schools approached the standard only in part.

2. When the evaluation of health service is made, it is found that the schools of the county are below the standard. A number of individual schools have standard health service programs, but the schools of the county are below standard because a few schools have no program of health service.

3. The evaluation of physical education yields results similar to some other phases of the school health program. When the measurement is made, the schools of the county are found to be below the standard established for the United States. It appears that some of the schools have an excellent program of physical education, but the standard for the Nation could not be met, for some schools make no provisions for physical education in their school program.

4. The school feeding program of the schools of Montague County has a number of characteristics that are worthy of praise, but the county as a whole did not meet the standard of acceptable practice established for the United States.

5. The measurement of the practices of the schools of the county in regard to health of school personnel reveals that the schools of Montague County are below standard. The standard of attainment regarding health of school personnel is very low, for the schools measure up to only one of the five points contained in the criteria.

6. The schools of Montague County are not meeting the standard of good practice for first-aid and safety. Some of the requirements are met, but other attainments are necessary in order to meet the standard fully.

After completing the proposed evaluation, it appears that the health and safety education program of the schools of Montague County, Texas, is below the standard of good practice as revealed in studies and reports regarding health and safety education, and in certain laws of the State of Texas.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study attempts to evaluate the program of health and safety education of the public schools of Montague County, Texas. The first part of the work involves making a survey of the literature on the subject to get a perspective of the problem. The statement of the problem, setting limitations of the study, defining terms, initiating a method of procedure, and noting certain related studies are different phases of the first part of the study.

The second part of the study concerns the historical background and development of health and safety education. This includes two steps--early beginnings in health and safety and later developments, especially in Texas. Health and safety instruction, health service, physical education, school feeding, health of school personnel, and first-aid and safety are the phases of the work that are evaluated.

The next phase of the work involves collecting data regarding the practices of the several schools and a critical analysis of studies and reports concerning health and safety practices. From the principles and policies pertaining to

health and safety education, criteria are drawn for the purpose of making the evaluation of this present study.

After setting up criteria, the next phase of the study involves classifying and assorting the data included in the questionnaires and making the proposed evaluation. With this accomplishment the problem would normally be solved. However, it seems better to go a step further.

The final part of the study is made up of three parts--summary, conclusions and recommendations.

Conclusions

After analyzing the findings of this study, the following conclusions were reached:

1. Health and safety instruction is included in the curriculum of the schools of Montague County, but the work should be adjusted better to meet the needs of each child in his total environment.

2. It is significant that only approximately 69 per cent of the schools of Montague County are making use of field trips in their study of health and safety education when the survey shows that the teachers are permitted a share in formulating the course of study.

3. Sixty-one per cent of the schools of Montague County should incorporate correlation and integration of health and safety instruction with other subjects and subject-matter.

4. Approximately 30 per cent of the schools should be provided with additional teaching aids, supplies, and materials necessary for health and safety instruction.

5. Another significant finding concerning the teaching of health and safety in the schools of Montague County is that no school reported that its teacher of health and safety had a major or at least 24 semester hours of training in this field. Most of the teachers had very little training in the field of health and safety.

6. Nearly 31 per cent of the schools of Montague County reported that no physical examinations are provided.

7. More than 38 per cent of the schools of Montague County make no provisions for isolating or excluding ill pupils, and 69 per cent of the schools report that pupils are readmitted after absence caused by illness without a physician's certificate or approval.

8. Only a small per cent of the schools are providing annual dental examinations for the pupils.

9. Another very significant finding is that nearly 39 per cent of the schools of Montague County have not taken advantage of the opportunity of having the services of a school nurse.

10. The findings show that some schools in Montague County employ men to teach girls' physical education classes.

11. The findings show that only approximately 35 per cent of the children enrolled in the schools of Montague County are being provided with noon lunch by the school.

12. Approximately 62 per cent of the schools of Montague County are operating lunchrooms that are meeting the standard, but 38 per cent of the schools have no school lunch privileges.

13. A very significant finding is that no school in Montague County has a satisfactory health service program for its teachers.

14. A few schools of Montague County should improve their programs for first-aid and emergency.

15. Most schools should provide additional fire extinguishers, fire drills, and make inspections for fire hazards.

16. The findings show that the smaller schools do not offer as many educational opportunities as the larger schools.

Recommendations

After completing the evaluation of the health and safety education program, the following recommendations are offered in the hope that the results of this study may be helpful to others.

1. The health and safety education program of the Montague County Public Schools should be aimed toward bringing together the home, the school and the community in an effort to further protect and improve the health and safety of the pupils, the teachers, and the patrons.

2. It is recommended that the program of health and safety be expanded so as to include additional experiences which will favorably influence habits, attitudes, and knowledge relating to individual, community, and racial health.

3. It is further recommended that students of the Montague County Public Schools should continue in later life those health and safety practices learned while in school with the assurance that they will improve their physical, mental, social, and emotional health as time passes.

4. It is further recommended that the Montague County Public Schools should strive for further progress in their programs of safety education so that students will learn better how to make wise choices when the possibility of injury to self and others is the factor involved.

5. It is finally recommended that additional consolidations of schools be made in Montague County so that greater educational opportunities may be offered to more students.

APPENDIX

The information regarding the schools included in this study was gathered by use of questionnaires. They were presented to the principals of the several schools of Montague County who supplied the information regarding the health and safety education. Copies of the questionnaires follow.

QUESTIONNAIRES

Name of School _____
Principal of School _____
Address of School _____
Number of Pupils Enrolled _____
Date the Information is Given _____

Health Instruction

1. Is health and safety instruction offered in all grades of your school? _____
2. Is the work adapted to each grade level? _____
3. Is an effort made to adjust health and safety instruction to meet the needs of the child in his total environment? _____
4. What field trips are made in the study of health and safety? _____
5. Do the teachers have a share in formulating the course of study? _____

6. What projects does your school use in health and safety instruction? _____
7. What visual aids does your school provide for health and safety instruction? _____
8. Does your school make use of local clubs and organizations in the teaching of health and safety? _____
9. What clubs and organizations lend their assistance? _____

10. Is health and safety taught as a subject? _____ Is it integrated with other subjects and subject-matter? _____
Is it correlated with other subjects and subject-matter?

11. How many pupils are enrolled in the average size class in health and safety? _____ How much time is allotted for health and safety education classes? _____
12. Give the number of hours of training of your teacher of health and safety. _____

Health Service

1. Does your school provide physical examinations for the pupils? _____ How often does the school examine the students? _____
2. Does the school re-examine special cases? _____
3. Are complete, individual and cumulative health records kept by the school? _____ Where are the records kept?

4. Do classroom teachers make daily inspections of the pupils? _____
5. List the things that are checked in the inspection. _____

6. Does the school have an isolation room? _____ Are the pupils isolated in the principal's office? _____ In some empty classroom? _____
7. Are ill pupils sent home immediately? _____
8. Does the school provide immunization for pupils? _____
9. What immunizations and vaccinations are given? _____

10. Does the school require a physician's certificate or approval for readmission of pupils after illness? _____
11. Does the school provide for dental examinations? _____
12. How often are they given? _____
13. Does the school inform parents regarding the health of their children? _____ How? _____
14. Do classroom teachers make preliminary tests regarding vision and hearing? _____ How is the examination made? _____

15. Does the school have a school nurse? _____ Does she give full time to the school? _____ What part of her time? _____
16. Does the school share with other schools to have this service? _____

Physical Education

1. Does the school require pupils to enroll in physical education classes? _____
2. Are physical education classes arranged to care for the physical need of each pupil? _____ Are corrective measures used? _____ Is the program graded to care for the needs of all pupils? _____
3. Is daily instruction offered in physical education? _____
4. How long are the classes of physical education? _____
5. What is the number of pupils in the average size class in physical education? _____
6. Are students taking physical education given thorough physical examinations? _____
7. How many hours of training does your physical education teacher have? _____
8. Do men teach boys' physical education classes? _____
9. Do women teach girls' physical education classes? _____
10. Are courses in physical education required for graduation?

11. Are re-examinations given after absence caused by illness before students are permitted to continue in the sport? _____
12. What facilities does the school provide for physical education? _____
13. Does the school provide showers? _____ Hot? _____ Cold? _____
14. What equipment does your school furnish for physical education? _____

1. Does the school provide school lunch? _____ Where do the pupils who do not eat at the school cafeteria get school lunch? _____
2. How many eat at the school cafeteria? _____ At public cafes? _____ Go home for lunch? _____ Bring lunch? _____ Served free lunch? _____
3. Is the school lunchroom under the control of the school? _____
4. Does the school furnish all facilities, equipment, and materials necessary for operation of the school lunchroom? _____
5. Does the school lunch receive commodities from the government? _____
6. Is a good quality of food used in preparing the school lunch? _____
7. Is a balanced meal served? _____ Is food well-prepared? _____
8. Is the school lunchroom inspected by health officials? _____
9. Do all food handlers have health certificates? _____
10. Who plans the school lunch menus? _____
11. Does the school make use of the school lunch to do effective teaching? _____ What teaching is done during school lunch? _____
12. Is the school lunch operated on a non-profit basis? _____

13. Are free meals served to under-nourished and under-privileged children? _____

Health of Personnel

1. Are periodic health examinations provided for all school personnel? _____ Are they required? _____
2. Are clean and sanitary working conditions provided for teachers? _____ Who is responsible for this service?

3. Does the school provide special rest rooms for teachers?

4. Are special toilets provided for teachers? _____
5. Are sick-leave privileges granted? _____ With pay? _____
Without pay? _____ With part pay? _____
6. Are retirement privileges offered to all school personnel? _____

First-Aid and Safety

1. Does the school have a definite program for rendering first-aid? _____ Who is responsible for rendering it?
_____ Does the physical education instructor administer first-aid for those enrolled in his department? _____
2. Does the school provide first-aid materials? _____
Is it ample? _____
3. Is each school bus provided with a first-aid kit? _____

4. Are first-aid materials placed at strategic places in each school building? _____
5. Does your school building have more than one story? _____
Number of stories? _____
6. Is a fire escape provided for your school if the building has more than one story? _____
7. Are school buildings inspected for fire hazards? _____
Who does it? _____
8. Are fire extinguishers provided for the school? _____
9. Is traffic supervision provided for the school? _____
10. Are the grounds kept free of all dangerous rubble? _____
11. Are school busses inspected by the state police? _____
How often? _____ What is the nature of the inspection? _____
12. Are school bus drivers instructed in the care of school busses? _____ Who does it? _____
When? _____

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